

MAINTENANCE MANIA!

Presented By



Presenting Sponsor
KD SUPPLY
FACILITIES MAINTENANCE

PARTICIPANT RULE BOOK

2019-2020 COMPETITION YEAR



FRIGIDAIRE



SMARTBURNER
FIRE PREVENTION PRODUCTS



BECOME CHAMPION AND WIN A FREE TRIP AND UP TO \$7,000 IN CASH AND PRIZES

The 14th annual NAA Maintenance Mania® National Championship will be held June 17, 2020, in Boston as part of Apartmentalize.

Twenty finalists will receive complimentary airfare, hotel accommodations, and conference registration. In addition, they will have a chance to win part of the estimated \$20,000 in cash and prizes donated by Maintenance Mania® sponsors, along with a CAMT scholarship from the NAA and their local apartment associations (if offered).



LET'S SUPPORT MAINTENANCE EDUCATION PROGRAMS TOGETHER

As presenting sponsor, HD Supply Facilities Maintenance will contribute up to \$6,000* to eligible NAA members. Each NAA member hosting a Maintenance Mania® event during the September 2019 through April 2020 competition season may be eligible for a contribution. The contribution can be used by the NAA member to enhance certain programs like trade shows, education sessions, and maintenance appreciation days.

Here's how you can help your local NAA member association:

- Purchase qualifying products during the 2020 promotional period
- Use the three-digit source code from the upcoming 2020 HD Supply Facilities Maintenance ECP Brochure every time you order during the promotional period
- Place your order by calling **1.800.431.3000** or shop online at **hdsupplysolutions.com**



*The maximum contribution is based on association unit count as reported by NAA. Payouts to NAA members with fewer than 100,000 units are capped at \$4,000. Payouts to NAA members with 100,000 units or more are capped at \$6,000. To be eligible, the total net qualifying purchases by all of the NAA member's units must be equal to or greater than \$1.00 times the total number of units for such NAA member as reported by NAA. The payout is calculated as follows: 6 percent of Net Qualifying Purchases of any A.O. Smith®, Carrier®, Queenaire®, Frigidaire®, Kidde®, Kwikset®, and SmartBurner® products, plus 4 percent of net qualifying purchases of any other product in the HD Supply Facilities Maintenance Multifamily Solutions catalog. "Net qualifying purchases" are gross purchases less returns, shipping, and taxes. Special-order and renovation purchases do not qualify for this program.

†Using your 3-digit source code ensures you will receive the promotional pricing offered by the national sponsors and allows HD Supply Facilities Maintenance to track all net qualifying purchases.

1. Participation

- 1.1 Participants are required to be maintenance technicians who spend a minimum of **32** hours of the work week in the field and are primarily employed by a community that is an industry member in good standing with an affiliated local or state apartment association or a direct member of the National Apartment Association (NAA) to compete in local and national events. Maintenance technicians who work for multiple communities or for a management company are eligible, as long as the above criteria are met and each community is a member. In order to be considered primarily employed by an industry member, the participant must work for the member for a minimum of **32** hours per week.
- 1.2 Individuals are not allowed to compete in more than one Maintenance Mania® event per competition year.
- 1.3 Participant substitution is cause for disqualification.
- 1.4 Participants must sign a liability waiver to compete in the games.
- 1.5 External* participants can attend a local event, within their membership region, at the invitation of the host apartment association, and with the approval of the Maintenance Mania Executive Committee, if they are a direct member of NAA, if their primary† local association does not host an event, or if special circumstances prevent them from attending their local event. Special circumstances may include, but are not limited to, weather, property-related absences, or illness. The Maintenance Mania Executive Committee will review the request with the selected association. The affiliate must submit the information to NAA a minimum of two weeks prior to the event. The participant may qualify for a Wildcard Finalist position.
- 1.6 Active participants are not permitted to be included or involved in the equipment setup, race car check-in, or judge training in any fashion.
- 1.7 Personal Conduct Policy – Substantiated claims of cheating, dishonesty, or impropriety as they relate to Maintenance Mania® will result in a ban for the competitor. Any such claims must be brought to the attention of the Maintenance Mania Executive Committee for review and a determination.

2. Games

- 2.1 Participants build their race cars prior to the event.
- 2.2 All games are timed to determine the fastest competitor in each game and overall.
- 2.3 Participants must complete all games and the car race to qualify for the overall event category.
- 2.4 Participants may not be present in the competition area while the games are being set up.
- 2.5 If, during an attempt at any game, a competitor believes they have encountered an issue with damaged or missing equipment, the participant should complete the game and properly stop the timer. Before the score is confirmed by the participant and submitted by the game's judge, the participant is to bring the issue to the attention of the judge and/or the Event Official. If the judge cannot make a ruling, the Event Official should be consulted for a ruling. If the Event Official determines there is an issue with the equipment, the issue should be resolved and the participant should be allowed another attempt. If there is no issue found by the Event Official, the participant's score on the initial attempt should be submitted by the judge.
- 2.6 All games must be played on tables that are 8' long and 30" wide. Any local events found to be using improper competition tables will be disqualified from the National Championship qualifying process.
- 2.7 If an association fails to secure proper competition tables for their event, registered participants may be allowed to compete at a willing affiliate's event as a wildcard. They will be eligible to qualify for the National Championship under the criteria outlined in Section 1.
- 2.8 Clamps are provided for designated games as a means to ensure the safety of the participants and the integrity of the competition. Clamps are not to be used on games not designated as such. The only designated game this season is the Kidde Fire and Carbon Monoxide Safety Installation.
- 2.9 Once the competition has started, no practice runs by any participant may be permitted.

3. Timers

- 3.1 Participants are judged on their position when starting or stopping the timer touchpad; both hands must be facing down on the touchpad with the participant standing in front of the touchpad at the end of the table and not on any side of the table.
- 3.2 If a participant stops the timer and accidentally shuts it off, which erases the time, the participant will have to redo the game and will use up his or her second chance.
- 3.3 If a timer touchpad is reset and/or the participant's time is not recorded on a second chance game, then no time will be recorded for that game, resulting in a disqualification from the overall competition and the National Championship qualifying process.

4. Judges

- 4.1 The game judge has the authority to apply a callback and certify that all game completion requirements have been met.
- 4.2 Judges are solely responsible for resetting the game and timer between participants.

*Participants are considered external when they are not employed by members of the association hosting the event. The participant must also meet the primary participation criteria outlined in 1.1.

†The primary local association is defined as the local association that your community is required to have membership with to be a member with NAA.

- 4.3 Participants can request a review of a game judge's interpretation of the game completion requirements by the event referee before the event has ended. Once the winners are announced, the results are final.
- 4.4 A game station may be stopped or suspended at any time the event official decides it is necessary or appropriate to maintain the integrity of the game.
- 4.5 The event referee is the on-site authority on all questions of game conduct. The decision of the event official is final.
- 4.6 An event official who cannot make a ruling shall contact a representative of the Maintenance Mania Executive Committee, who will make a final decision.

5. Scorekeeping

- 5.1 The time it takes the participant to complete the game requirements between starting and stopping the timer is called first chance.
- 5.2 A callback is the additional time it takes the participant from the restart of the timer to correct an omission or error identified by the game judge and return to stop the timer.
- 5.3 Each participant has one second chance during the competition to redo any one game to improve his or her time. The lower of the recorded times will be used as his or her official time.
- 5.4 Participants are responsible for confirming the correct times are recorded electronically and on their scorecard immediately following the completion of each game. If no verifiable time is recorded in the system or on their scorecard, no time will be recorded for that attempt, resulting in disqualification from the overall competition and the National Championship qualifying process.
- 5.5 Any discrepancies regarding a participant's time must be immediately brought to the attention of the Event Official.
- 5.6 Only the Event Official and Event Scorekeeper are to have access to the scorer's laptop and event standing.
- 5.7 Only the Event Official is permitted to communicate and approve changes to participants' scores.

6. National Championship

- 6.1 Individuals must meet the criteria outlined in Section 1 at the time of the National Championship Finalist selection process and maintain that status until the conclusion of the National Championship.
- 6.2 Individuals may participate in a maximum of five (5) consecutive National Championships. If the five-year maximum is met, the individual is not eligible to compete at the National Championship the following year. The individual will be eligible to qualify for the National Championship the second year. For example, if an individual qualifies for the National Championship in 2012, 2013, 2014, 2015, and 2016, he or she may not compete at the National Championship in 2017. If the individual qualifies in 2018, he or she may compete at the National Championship. This rule does not apply to local events. This rule applies to National Championship events held prior to 2015, and moving forward.
- 6.3 If an individual wins two consecutive National Championships, he or she is not eligible to compete in the next National Championship if he or she qualifies. If the individual qualifies the following year, he or she may compete in the National Championship. For example, if the same individual wins the National Championship in 2015 and 2016, he or she may not compete at the National Championship in 2017. If the individual qualifies in 2018, he or she may compete at the National Championship. This rule does not apply to local events.
- 6.4 Participants must win the overall first, second, or third place at the local event in order to be considered for a National Championship Finalist position as either a Regional or Wildcard Finalist. For every local participant ineligible to compete at the National Championship because of Rule 6.2 or 6.3, the participant with the next best time will be considered for a National Championship Finalist position.
- 6.5 The participant with the fastest combined time in each of the 10 NAA regions qualifies as the Regional Finalist, unless that individual is ineligible to compete in the National Championship because of Rule 6.2 or 6.3. In that case, the participant with the next fastest combined time in the region qualifies as the Regional Finalist.
- 6.6 The 10 Wildcard Finalists are selected from the fastest combined times across all NAA regions after the Regional Finalists are determined. Rule 6.5 also applies to the Wildcard Finalist selection process.
- 6.7 As outlined in Rule 1.5, participants can request to compete at an association's event that they are not a member of if their local association does not host an event, or if they are unable to attend their local event. The Maintenance Mania Executive Committee will review the request with the selected association. If the association allows an external participant to compete, the participant may only qualify for a Wildcard Finalist position.
- 6.8 If a participant changes communities after competing at the local event but before the determination of National Finalists, the participant's time is considered in the region in which he or she competed. The participant will be promoted as representing the affiliate who hosted the event in which the participant competed.
- 6.9 No second chance attempts may be made by finalists during the Maintenance Mania National Championship competition.
- 6.10 The rules outlined in this rule book are to serve as the sole guide for local Maintenance Mania events. Rules at the National Championship may be updated by the Maintenance Mania Executive Committee as deemed necessary.

7. Rule Book

- 7.1 This rule book is meant to provide program guidelines. Any unforeseen situation will be addressed by the Maintenance Mania Executive Committee.

A.O. SMITH® WATER HEATER INSTALLATION



Competition Instructions

1. Start at the end of the competition table with both hands placed on the timer until the light turns green.
2. Start the time by taking both hands off the timer.
3. Pick up the new water heater.
4. Move to the right side of the table to the work area.
5. Complete the following in any sequence:
 - Remove the old water heater by disconnecting the hot and cold supply lines.
 - Install the new water heater by connecting the hot and cold supply lines.
 - Open the cold water supply valve.
 - Open the hot water on the faucet to allow air to escape from the new water heater, preventing a dry fire.
 - Make sure the water heater tank is filled by pulling up the water level tab.
 - Turn on the power to the water heater from the circuit breaker.
6. Return the old water heater to the starting area beyond the checkered line on the table.
7. Place both hands on the timer to stop the time.

Judge Inspection

The judge will review the following requirements to certify the game was completed successfully:

- Both hot and cold supply lines are engaged to the new water heater.
- The cold water supply valve is in the open position.
- The hot water handle on the faucet is in the open position.
- The water level is in the full position.
- The circuit breaker is in the on position.
- The old water heater is in the starting area beyond the checkered line on the table.

A callback will be applied if any of the above requirements are not completed on the first pass.

Judge Reset Notes

When resetting the game for the next competitor, secure supply lines by tightening completely and then loosening counterclockwise by a quarter-turn.

A.O. Smith® 40 Gallon Lowboy Electric Water Heater
Mfg #ENLB-40
754124



SMARTCOMFORT® BY CARRIER AIR CONDITIONER REPAIR



Competition Instructions

1. Stand at the end of the table with both hands placed on the timer until the light turns green.
2. Start the time by taking both hands off the timer.
3. Place the new capacitor in the tote.
4. Move to the right side of the table to the work area.
5. Competitor completes the following:
 - Disconnect and remove the old capacitor.
 - Mount the new capacitor inside of the bracket.
 - Connect the wires from the contactor to the matching colored quick-connects on the capacitor.
6. Place the old capacitor in the tote and return the tote to the starting area beyond the checkered line on the table.
7. Place both hands on the timer to stop the time.

Judge Inspection

The judge will review the following requirements to certify the game was completed successfully:

- New capacitor is inserted upright in the mounting bracket.
- All three wires are connected to the three matching colored quick-connects on the new capacitor.
- Old capacitor and tote are in the starting area beyond the checkered line on the table.
- All wires on the contactor are still engaged and were not disconnected during game play.

A callback will be applied if any of the above requirements are not completed on the first pass.

Judge Reset Notes

When resetting the game for the next competitor, position capacitor so brown prong is facing toward the right. Ensure wires are connected to their matching color quick-connects on the capacitor and are not tangled.



**SmartComfort® By Carrier
Dual Run 440V 30/5
MFD Capacitor
701875**

**SmartComfort®
By Carrier
3 Ton 14 SEER
Air Conditioner
282434**



QUEENAIRE® SHOCK TREATMENT SETUP



Competition Instructions

1. Participant rolls a die to select which of the scenarios s/he will solve during the game.
2. Stand at the end of the table with both hands placed on the timer until the light turns green.
3. Start the time by taking both hands off the timer.
4. Place the Newaire Plug-In, Door Hanger, scenario card ring and calculator in tote.
5. Move to the right side of the table to the work area.
6. Competitor completes the following:
 - Using the selected scenario card with formula and the calculator, solve for the correct Ozone Knob setting.
 - Turn the Ozone Knob on the Queenaire Tornado to the correct setting as determined by solving for the selected scenario.
 - Set the Timer Knob on the Queenaire Tornado as outlined on the selected scenario card.
 - Plug the Queenaire Tornado into the outlet on the left (nearest the Queenaire Tornado unit).
 - Plug the Newaire Plug-In unit into the outlet on the right.
 - Hang the door hanger on the door knob.
7. Place the scenario cards and calculator in the tote and return the tote to the starting position past the checkered line on the table.
8. Place both hands on the timer to stop the time.

Judge Inspection

The judge will review the following requirements to certify the game was completed successfully:

- The Ozone Knob and Timer Knob on the Queenaire Tornado are set to the correct settings for the selected scenario.
- The Queenaire Tornado unit is plugged into the outlet on the left and the unit's power switch is in the On position.
- The Newaire Plug-In unit is plugged into the unit on the right.
- The door hanger is hung on the door knob.
- The tote with the calculator and scenario cards is returned to the starting area beyond the checkered line of the table.

A callback will be applied if any of the above requirements are not completed on the first pass.

Judge Reset Notes

When resetting the game for the next competitor, set both the Timer and Ozone Control Knobs to "1".



**Queenaire® Tornado
Ozone Deodorizer**
Mfg #QTT625
125453



FRIGIDAIRE® ICEMAKER INSTALLATION

FRIGIDAIRE

Competition Instructions

1. Stand at the end of the table with both hands placed on the timer until the light turns green.
2. Start the time by taking both hands off the timer.
3. Place the icemaker and water valve with inlet tube into the tote.
4. Move to the right side of the table to the work area.
5. Complete the following in any sequence:
 - Mount the icemaker by hanging the unit on both bolts inside the display.
 - Lift the icemaker wire signal arm to the off position.
 - Mount the water valve in the rear panel.
 - Push the water inlet tube through the rear panel to the icemaker.
6. Return the tote to the starting area beyond the checkered line on the table.
7. Place both hands on the timer to stop the time.

Judge Inspection

The judge will review the following requirements to certify the game was completed successfully:

- The icemaker is mounted on both bolts.
- The icemaker arm is lifted up.
- The water valve is mounted in the rear panel.
- The water inlet tube is set in the rear panel.
- The tote is returned to the starting area beyond the checkered line on the table.

A callback will be applied if any of the above requirements are not completed on the first pass.



KIDDE® FIRE & CO ALARM SAFETY INSTALLATION



Competition Instructions

1. Stand at the end of the table with both hands placed on the timer until the light turns green.
2. Start the time by taking both hands off the timer.
3. Place the sealed battery smoke alarm and the combo smoke and carbon monoxide alarm into the tote.
4. Move to the right side of the table to the work area.
5. Complete the following in any sequence:
 - Open the Slimline KeySafe® using the combination 1-2-3-4, and place the faceplate into the tote.
 - Remove the old smoke alarm and place it into the tote.
 - Install the sealed battery smoke alarm by attaching it to the ceiling plate.
 - Press the test button once; the full alarm sounds after 10 seconds.
 - Install the combo smoke and carbon monoxide alarm by attaching it to the wall plate.
6. Place the old parts in the tote and return the tote to the starting area beyond the checkered line on the table.
7. Place both hands on the timer to stop the time.

Judge Inspection

The judge will review the following requirements to certify the game was completed successfully:

- The sealed battery smoke alarm and the combo smoke and carbon monoxide alarm are correctly installed and engaged with the mounting plates.
- The full alarm on the sealed battery smoke alarm sounded after the test button was pushed.
- The tote with the old smoke alarm and the Slimline KeySafe® faceplate are returned to the starting area beyond the checkered line on the table.

A callback will be applied if any of the above requirements are not completed on the first pass.

**Commercial Slimline
Push-Button Combination
KeySafe®
889079**



**Direct Wire Combination
Carbon Monoxide And
Smoke Alarm
Mfg #21006377
126726**



**Sealed Lithium
Battery Smoke Alarm
Mfg #900-0136-003
126015**



KWIKSET® KEY CONTROL™ DEADBOLT TEST



Competition Instructions

1. Stand at the end of the table with both hands placed on the timer until the light turns green.
2. Start the time by taking both hands off the timer.
3. Pick up the resident key and move to the right side of the table to the work area.
4. Lock the Key Control deadbolt with the resident key.
5. Return to the starting area and switch the resident key for the control key.
6. Rotate the deadbolt faceplate with the rotation tool to expose the control cylinder (top).
7. Unlock, then immediately lock, the deadbolt.
8. Rotate the deadbolt faceplate back to expose the resident cylinder (bottom) with the rotation tool.
9. Place rotation tool anywhere on the black base of the game display.
10. Return the control key to the starting area beyond the checkered line on the table.
11. Place both hands on the timer to stop the time.

Judge Inspection

The judge will review the following requirements to certify the game was completed successfully:

- The deadbolt is locked with the resident key.
- The deadbolt is unlocked and locked with the control key.
- The deadbolt faceplate is turned back with the rotation tool to expose the resident cylinder (bottom).
- Both keys are returned to the starting area beyond the checkered line on the table.
- The rotation tool is resting on the game display's base.

A callback will be applied if any of the above requirements are not completed on the first pass.



SMARTBURNER™ HEATING ELEMENT INSTALLATION



Competition Instructions

Note: Gloves are provided and optional for this game. The competitor may choose to wear the supplied gloves as a precaution when handling the game materials. Competitor must decide whether to wear the gloves prior to starting the game timer. All other competition rules apply – specifically, if a competitor wants to redo the game with or without the gloves, a second chance must be used.

1. Stand at the end of the competition table with both hands placed on the timer until the light turns green.
2. Start the time by taking both hands off the timer.
3. Place the two stainless steel rings and two SmartBurner™ elements in the tote.
4. Move to the work area on the right side of the table.
5. Competitor completes the following:
 - Mount the 6" stainless steel ring on the 6" SmartBurner™ and mount the 8" stainless steel ring on the 8" SmartBurner™.
 - Disconnect the old electric coil burners.
 - Mount the two new SmartBurner™ elements with their intact stainless steel rings on the stove top so that they are sitting flush inside of the drip pans.
6. Place the old electric coil burners in the tote and return the tote to the starting area beyond the checkered line on the table.
7. Place both hands on the timer to stop the time.

Judge Inspection

The judge will review the following requirements to certify the game was completed successfully:

- The 6" stainless steel ring is mounted on the 6" SmartBurner™.
- The 8" stainless steel ring is mounted on the 8" SmartBurner™.
- New SmartBurner™ elements are inserted into the terminals on the stove top so that they are sitting flush inside of the drip pans.
- Old electric coil burners and tote are in the starting area beyond the checkered line on the table.

A callback will be applied if any of the above requirements are not completed on the first pass.

Judge Reset Notes

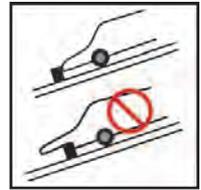
When resetting the game for the next competitor, reset metal rings loose and on top of their corresponding heating elements. Rings should not be attached to the heating element.



RACE CAR COMPETITION

Car Requirements

- Each competitor must build his or her own race car.
- All cars must conform to the following specifications:
 - Length – maximum 18". Cars cannot extend beyond, over, or above the start gate pin (pin is 1-1/2" high). A 1/2" wide bumper in the center of the car both on the front and the back is required to make contact with the pin. See illustration.
 - Width – maximum 6".
 - Height – maximum 6".
 - Weight – maximum 1 lb. 8 oz.
 - Race cars can only be gravity powered.
 - Race cars must use at least three maintenance supply parts (wood does not count).
 - Glass may not be used on race cars.
 - Approved yellow competition wheels provided by the affiliate for the current competition season must be used and may not be altered or modified (2 large and 2 small).
- Participants who do not enter a car cannot win the overall event.



Competition Instructions

- Test the car on the track to make final adjustments before check-in.
- Check your car in with a race judge.
- Race cars that pass the check-in process are placed in quarantine and can no longer be tested or modified.
- Race cars that fail the check-in process receive a total time of 20 seconds for the race car competition. A race judge will mark the time on your scorecard and in the scorekeeping system. Your car will not be allowed to race.
- Participants will be called to the racetrack by their number.
- Cars are raced twice, once down each lane.
- In the event the car does not cross the finish line under its own power, a time of 10 seconds will be marked for each incomplete run.
- If, during a race on either lane, a part on a car, including a wheel, falls off, a time of 10 seconds will be marked for the incomplete run.
- Total competition time is the sum of the two runs.



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CAMT 

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MAINTENANCE TECHNICIANS



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- Fair housing regulatory compliance
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To locate an affiliate offering this course near you, visit
www.naahq.org/education-careers/find-a-course.

2019 CHAMPIONSHIP FINALISTS

See how your times compare with the 2018-19 championship record holders.
Be faster, and you could become the next Maintenance Mania® champion.

GAME	PERSONAL BEST TIME	AVERAGE TIME	2019 NATIONAL CHAMPIONSHIP TIME
A.O. Smith® Water Heater Installation			8.016 seconds set by Pedro Martinez
Frigidaire® Icemaker Installation			4.010 seconds set by Justin Heenan
Kidde® Fire & CO Alarm Safety Installation			4.942 seconds set by Robert Patyi
Kwikset® Key Control™ Deadbolt Test			9.478 seconds set by Anthony Infussi
Queenaire® Shock Treatment Setup			New Game in 2019-2020
SmartBurner™ Heating Element Installation			8.104 seconds set by Pedro Martinez
SmartComfort® by Carrier Air Conditioner Repair			7.243 seconds set by Jason Wyles
Race Car Competition			4.348 seconds set by Chris Haney
OVERALL TIME			