

**Sport Timing Specialists** 

# Polaris

Dog Agility Timer

Operating Instructions

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# **Light Curtains (1)**

A pair of light curtains (one with a red top, one with a black top) form a curtain of light between them when placed across an obstacle. The maximum optical range between the poles is about 6 to 7 feet. The red-capped poles are linked (ID'd) to a specific system. The black capped poles are interchangeable with any system without having to re-ID.

**Generation 1** poles (pre-2021) can be recognized by the black ON/OFF ring near the bottom of the pole.

**Generation 2** poles (2021+) do *not* have an ON/OFF ring. Instead, the pole powers on as soon as the battery is inserted and can be turned off and back on by *gently* pressing the center of the top cap. When the day is done, always remove the battery pack.

Note that a pole set (a black cap facing a red cap) must both be the same generation of pole. However, a Gen 1 set can be used at the start and a Gen 2 set at the finish (or vice-versa) without issue.

#### **Batteries**

#### Installation

The light curtains run from 6AA batteries installed in a battery cartridge. Carefully note battery orientation within the cartridge. Do not mix new and old batteries in the same cartridge. **Important:** After inserting batteries into the holder, use your thumb to push each battery away from the spring on each side of the holder – i.e., "help" the spring push the batteries towards the flat contact at the opposite end.

The battery cartridge slides into the bottom of the light curtain. Unscrew the bottom cap and install the battery cartridge by inserting the + – end first with the + – side of the triangle closet to the metal tongue. It's best to hold the pole horizontal in one hand with the lenses facing the sky so that the cartridge rests on the the metal tongue as you slide it in. Finally, replace the bottom cap.

#### **Battery Care**

The light curtains operate about 50 hours from a set of new alkaline batteries (*use only alkaline batteries*). The Gen 2 *red* cap pole will run about 90 hours. The power lamp at the top of the light curtain unit glows steadily while the battery is good and flashes when the battery is low.

The light curtains operate about two hours after the *first* indication of low battery. If a unit with a low battery is turned off and then later turned back on, the lamp may glow steadily for some time before it starts flashing again. This does not mean there are two more hours of operation remaining at this point.

Always remove the battery cartridges from the light curtains at the end of each day and store them in the spots provided in the carrying case.

## **Equipment Care**

#### Rain / Water

The light curtains are water resistant, however, after use in the rain, wipe off water before laying them in the case or removing the batteries. Once home, remove the poles from the case and let them dry out a few days in an air-conditioned or heated area.

All other equipment *is not water resistant*. The console can be operated inside a clear plastic bag if required. Always allow damp equipment to dry for several days in an air conditioned or heated area.

#### Storage

Always remove the battery cartridge from light curtains after each use.

#### Radio Channel

Ideally, systems operating in adjacent rings should be on different channels (frequencies). The channel number can be found on the back of the red-capped pole as a single digit: 0, 1, 2 or 3.

## Setup Procedures for a Trial

# **Light Curtains (2)**

- Install four AA batteries into the Polaris timer console as labeled. Turn on the timer console using the slide switch located at the upper right corner of the timer.
- 2) Install batteries and turn on the light curtains as outlined previously. Insert the pole into the base, but do not press the pole in tightly yet.
- 3) Place a set of curtains at the approach side of the first obstacle. Make sure the light curtains are *as vertical as possible*. If the base is on an uneven surface, push dirt, folded paper, etc., under base leg(s) as needed to level the base and leave the pipe as vertical as possible.
- 4) Stand over the top of the *red* cap curtain and view down the line of clear lenses with one eye. Rotate the curtain so the lenses are pointed directly at the black cap curtain on the opposite side, then press the pole a bit more firmly into the base.
- 5) Rotate the *black* cap curtain to the left and right and look for a green light on the *red* cap pole. Center the rotation of the black cap pole half way between the two points at which the light on the red cap pole turns from green to red, and then press the pole a bit more firmly into the base.

Even if the green alignment light is already on, *it is important* to take the time to make sure the light curtains are as vertical as possible and perform alignment steps 4 and 5. This ensures a strong alignment instead of a possibly marginal alignment that may be more easily affected by sun, dust, etc.

(**Note:** If the sun is low and shining directly into the lenses of the red capped light curtain, swap the two light curtains so that the red capped light curtain is pointed away from the sun.)

- 6) Repeat steps 3-5 for the finish obstacle. For spread jumps, the curtains should be placed on the finish side of the obstacle. Otherwise, place the curtains on the approach side of the obstacle. (**Note**: The finish obstacle cannot be a closed tunnel.)
- 7) Pass your hand through the start and finish beams. The green light on the red-capped curtain should flicker to red and then go back to green as your hand goes through the beam. Verify that the Polaris timer console is receiving a signal from the light curtains as detailed below.

## Verifying Beam Alignment on the Console

The **bottom right corner** of the status display on the Polaris timer console shows the alignment status of the light curtains (electric eyes). When a curtain pair is aligned, its number is displayed (1 or 2). If not aligned, or while the beam is broken, "x" is shown.

Alignment	Display Shows	
Eyes aligned	Eye # <u>1 2</u>	
Eye #2 not aligned (or beam broken)	Eye # <u>1 ×</u>	

If the console does not update these indicators when the beams are broken, then radio messages from the light curtains are not being received by the console. In this case, check and see if the indicators update with the console closer to light curtains – about ten feet or so. If the indicators still don't update, follow the procedure later in this manual for programming the light curtain ID codes into the console.

#### Timer Console Setup

## Standard, JWW & FAST Classes (AKC, CKC)

- 1) With the timer stopped, press the SETUP button to enter the setup mode.
- 2) Press ENTER to select the <u>Agility Rules</u>. Press NEXT CHOICE until the desired venue (AKC or CKC) is shown, then press ENTER.
- 3) Press ENTER to set the <u>Standard Course Time</u>. Key in the course time followed by the ENTER key. The *maximum* course time is automatically set to the specified standard course time plus 20 seconds. Set the course time to zero if not using a course time.
- 4) Press ENTER for <u>FAST Class Options</u>. If this is *not* a FAST class, press ENTER for No FAST Horns. Otherwise, press NEXT CHOICE until the appropriate class size is displayed, then press ENTER. Class sizes are displayed as follows: 20–26 in (20", 24" or 26" regular division) 12–16, 16–20 F (12" and 16" regular divisions, 16" and 20" preferred divisions)

- 8in, 8-12in P (8" regular division, 8" and 12" preferred divisions)
- 4in Preferred (4" preferred division)
- 5) Press ENTER to select Finish Eye Options.

  Choose Stop on Pass 1 if the finish obstacle is crossed only at the finish. Otherwise, press NEXT CHOICE and choose the appropriate Stop on Pass based on how many times the finish obstacle is crossed during a run.

#### Notes:

- Press SETUP at any time to exit the setup menu.
- An asterisk identifies the currently active option or selection.
- Parameters can be updated individually and in any order.
- Changes are automatically saved, even after turning off the timer.
- To correct a mistake when entering a time, press and hold the CLEAR TIME button until the timer beeps and resets the entry to zero, then reenter the desired time.

#### **Timer Console Operation**

When ready, press the RACE/GO button to speak "Go" on the optional speaker and to display "Go" on the optional scoreboard.

When the dog breaks the start line beam, the timer automatically resets to zero and begins timing. When the dog crosses the finish line beam, the timer automatically stops. If the course design does not use a light curtain at the final obstacle, the time keeper must manually stop the timer by pressing the START/STOP button.

If the timer fails to start, press the HORN button to alert the handler before the third obstacle.

If the timer accidentally stops during a run, press the RESTART button any time before the run completes. Accurate timing is restored as if the timer had never been stopped.

If the dog fails to complete the course, press the START/STOP button to manually stop the timer.

#### Notes:

When the finish eye is set to stop on the 2<sup>nd</sup> or 3<sup>rd</sup> pass, the word "Off" flashes in the bottom right corner of the status display until the light curtain is automatically re-armed for the final pass through the finish obstacle.

Use the PREV and NEXT keys to scan back and forth through previous times. The previous time display is removed after about ten seconds, or by pressing any other key. You may view a previous time even while the timer is running.

The timer does not have to be cleared to zero between runs – time automatically starts at zero for each new run.

#### Timer Console Setup

## Standard & JWW (USDAA, ASCA, AAC, NADAC)

- 1) With the timer stopped, press the SETUP button to enter the setup mode.
- 2) Press ENTER to select the <u>Agility Rules</u>. Press NEXT CHOICE until the desired venue is shown, then press ENTER.
- 3) Press ENTER to set the <u>Standard Course Time</u>. Key in the standard course time followed by the ENTER key. If you set the standard course time at zero, be sure to select No Game Horns in the Game Horn menu (see below).
- 4) Press ENTER to set the <u>Maximum Course Time</u>. Key in the maximum course time followed by the ENTER key. If not using a maximum course time, enter a time of zero.
- 5) Press ENTER to set <u>Game Horns</u>. Press ENTER for No Game Horns (this forces the Standard and JWW classes).
- 6) USDAA venues only: Press ENTER to choose the <u>Table Count</u> option. Then press NEXT CHOICE to swap between Continue Count or Restart Count. Press ENTER when the desired option is displayed. Choose Continue Count for Ad-

- vanced/Masters, choose Restart Count for Starters/Novice.
- 7) Press ENTER to select Finish Eye Options.

  Choose Stop on Pass 1 if the finish obstacle is crossed only at the finish. Otherwise, press NEXT CHOICE and choose the appropriate Stop on Pass based on how many times the finish obstacle is crossed during a run.

#### Notes:

- Press SETUP at any time to exit the setup menu.
- An asterisk identifies the currently active option or selection.
- Parameters can be updated individually and in any order.
- Changes are automatically saved, even after turning off the timer.
- To correct a mistake when entering a time, press and hold the CLEAR TIME button until the timer beeps and resets the entry to zero, then reenter the desired time.

## **Timer Console Operation**

When ready, press the RACE/GO button to speak "Go" on the optional speaker and to display "Go" on the optional scoreboard.

When the dog breaks the start line beam, the timer automatically resets to zero and begins timing. When the dog crosses the finish line beam, the timer automatically stops. If the course design does not use a light curtain at the final obstacle, the time keeper must manually stop the timer by pressing the START/STOP button.

If the timer fails to start, press the HORN button to alert the handler before the third obstacle.

If the timer accidentally stops during a run, press the RESTART button any time before the run completes. Accurate timing is restored as if the timer had never been stopped.

If the dog fails to complete the course, press the START/STOP button to manually stop the timer.

#### Notes.

When the finish eye is set to stop on the 2<sup>nd</sup> or 3<sup>rd</sup> pass, the word "Off" flashes in the bottom right corner of the status display until the light curtain is automatically re-armed for the final pass through the finish obstacle.

Use the PREV and NEXT keys to scan back and forth through previous times. The previous time display is removed after about ten seconds, or by pressing any other key. You may view a previous time even while the timer is running.

The timer does not have to be cleared to zero between runs – time automatically starts at zero for each new run.

# Gambler's Class

- 1) With the timer stopped, press the SETUP button to enter the setup mode.
- 2) Press ENTER to select the <u>Agility Rules</u>. Press NEXT CHOICE until the desired venue is shown, then press ENTER.
- Press NEXT CHOICE to skip Standard Course Time. Press NEXT CHOICE again to skip Maximum Course Time.
- 4) Press ENTER to set <u>Game Horns</u>. If you have previously entered horn options in the advanced menu, press NEXT CHOICE until the option number you desire is displayed, then press ENTER. You can then skip to step 7.
  - **Otherwise**, press NEXT CHOICE once to display the Key-In Times option and then press ENTER.
- Key in the <u>Horn 1 Time</u> followed by the ENTER key. This is the opening sequence time before the gamble.
- 6) Key in the <u>Horn 2 Time</u> followed by the ENTER key. This is the total time including the opening

- sequence. That is, add the opening sequence time and the gamble time to compute this value.
- 7) Press ENTER to select Finish Eye Options.

  Choose Stop on Pass 1 if the finish obstacle is crossed only at the finish. Otherwise, press NEXT CHOICE and choose the appropriate Stop on Pass based on how many times the finish obstacle is crossed during a run.

#### Notes:

- Press SETUP at any time to exit the setup menu.
- An asterisk identifies the currently active option or selection.
- Parameters can be updated individually and in any order.
- Changes are automatically saved, even after turning off the timer.
- To correct a mistake when entering a time, press and hold the CLEAR TIME button until the timer beeps and resets the entry to zero, then reenter the desired time.

#### **Timer Console Operation**

When ready, press the RACE/GO button to speak "Go" on the optional speaker and to display "Go" on the optional scoreboard.

For a manual start, press the START/STOP button when the dog crosses the start line. Otherwise, when the dog breaks the start line beam, the timer automatically resets to zero and begins timing. The horns are sounded in sequence as time progresses. When the dog crosses the finish line beam, the timer automatically stops. If the course design does not use a light curtain at the final obstacle, the time keeper must manually stop the timer by pressing the START/STOP button.

If the timer fails to start, press the HORN button to alert the handler before the third obstacle.

If the dog fails to complete the course, press the START/STOP button to manually stop the timer.

If the timer accidentally stops during a run, press the RESTART button any time before the run completes. Accurate timing is restored as if the timer had never been stopped.

#### Notes:

During the opening sequence, or if the finish eye is set to stop on the 2<sup>nd</sup> or 3<sup>rd</sup> pass, the word "Off" flashes in the bottom right corner of the status display until the light curtain is automatically re-armed for the final pass through the finish obstacle.

Use the PREV and NEXT keys to scan back and forth through previous times. The previous time display is removed after about ten seconds, or by pressing any other key. You may view a previous time even while the timer is running.

The timer does not have to be cleared to zero between runs – time automatically starts at zero for each new run.

# **Snooker Class**

- 1) With the timer stopped, press the SETUP button to enter the setup mode.
- 2) Press ENTER to select the <u>Agility Rules</u>. Press NEXT CHOICE until the desired venue is shown, then press ENTER.
- Press NEXT CHOICE to skip Standard Course Time. Press NEXT CHOICE again to skip Maximum Course Time.
- 4) Press ENTER to set <u>Game Horns</u>. If you have previously entered horn options in the advanced menu, press NEXT CHOICE until the desired option number is displayed, then press ENTER. You can then skip to step 7.
  - **Otherwise**, press NEXT CHOICE once to display the Key-In Times option and then press ENTER.
- 5) Key in the <u>Horn 1 Time</u> followed by the ENTER key. This is the allowed course time.

- 6) Key in zero for the <u>Horn 2 Time</u> followed by the ENTER key.
- 7) Press SETUP to exit the setup menu.

#### Notes

- Press SETUP at any time to exit the setup menu.
- An asterisk identifies the currently active option or selection.
- Parameters can be updated individually and in any order.
- Changes are automatically saved, even after turning off the timer.
- To correct a mistake when entering a time, press and hold the CLEAR TIME button until the timer beeps and resets the entry to zero, then reenter the desired time.

## **Timer Console Operation**

When ready, press the RACE/GO button to speak "Go" on the optional speaker and to display "Go" on the optional scoreboard.

For a manual start, press the START/STOP button when the dog crosses the start line. Otherwise, when the dog breaks the start line beam, the timer automatically resets to zero and begins timing. The horn will sound at the time specified. The time keeper must manually stop the timer when appropriate by pressing the START/STOP button.

If the timer fails to start, press the HORN button to alert the handler before the third obstacle.

If the timer accidentally stops during a run, press the RESTART button any time before the run completes. Accurate timing is restored as if the timer had never been stopped.

#### Notes:

Use the PREV and NEXT keys to scan back and forth through previous times. The previous time display is removed after about ten seconds, or by pressing any other key. You may view a previous time even while the timer is running.

The timer does not have to be cleared to zero between runs – time automatically starts at zero for each new run whether started manually or with the light curtains.

# **Practice Mode**

- 1) With the timer stopped, press the SETUP button to enter the setup mode.
- 2) Press ENTER to select the <u>Agility Rules</u>. Press NEXT CHOICE until Practice Mode is displayed, then press ENTER.
- 3) Press ENTER for <u>Course Length</u>. Key in the course length followed by ENTER. Input the course length in your desired unit (yards or meters) even if the displayed unit is incorrect you can correct the unit in step 4.
- Press ENTER to choose Yands/Second, or press NEXT CHOICE and then ENTER to choose Meters/Second.
- 5) Press ENTER to select <u>Finish Eye Options</u>. Choose Stop on Pass 1 if the finish obstacle is crossed only at the finish. Otherwise, press NEXT

CHOICE and choose the appropriate Stop on Pass based on how many times the finish obstacle is crossed during a run.

#### Notes:

- Press SETUP at any time to exit the setup menu.
- An asterisk identifies the currently active option or selection.
- Parameters can be updated individually and in any order.
- Changes are automatically saved, even after turning off the timer.
- To correct a mistake when entering the course length, press and hold the CLEAR TIME button until the timer beeps and resets the entry to zero, then re-enter the desired course length.

## **Timer Console Operation**

Make sure the timer is stopped. Whenever ready, run the course with the dog. When the dog breaks the start line beam, the timer automatically resets to zero and begins timing. When the dog crosses the finish line beam, the timer automatically stops.

The total time shows on the upper Time Display and the average speed, in yards or meters per second is shown on the bottom display.

If the timer accidentally stops during a run, a helper can press the RESTART button any time before the run completes. Accurate timing is restored as if the timer had never been stopped.

#### Notes:

When the finish eye is set to stop on the 2<sup>nd</sup> or 3<sup>rd</sup> pass, the word "Off" flashes in the bottom right corner of the status display until the light curtain is automatically re-armed for the final pass through the finish obstacle.

The timer does not have to be cleared to zero between runs – time automatically starts at zero for each new run whether started manually or with the light curtains.

The Advanced Menu provides access to some of the less frequently used timer settings:

- Walk-through time
- Time format selection
- Game horn times
- Light curtain start/stop options
- Handswitch options
- Table timer options
- Time fault options
- Programming of light curtains, handswitches and the wireless speaker
- Speaker options
- Split time options
- Output options (scoreboard, printer and computer)
- Advanced AKC options

Each of these items is discussed in detail in a following section.

To access the Advanced Menu, follow these steps:

- 1) With the timer stopped, press the SETUP button to enter the setup mode.
- 2) Press NEXT CHOICE a few times until Advanced Menu is displayed, then press ENTER.
- Scan forward or backward through the menu choices using the NEXT CHOICE and PREV CHOICE keys. When the desired menu item is displayed, press ENTER as instructed.

#### Notes

- Press SETUP at any time to exit the menu.
- An asterisk identifies the currently active option or selection.
- Changes are automatically saved, even after turning off the timer.
- To correct a mistake when entering a time or value, press and hold the CLEAR TIME button until the timer beeps and resets the entry to zero, then re-enter the desired time or value.

## Walk-Through Timers

The Polaris timer can be used to count down the walk-through period and display the count down on the optional scoreboard. At expiration of the walk-through time, a horn tone is sounded over the optional amplified speaker and a *post* walk through count *up* timer is started. The post walk through period is typically set to five minutes to allow time to prepare the ring before the first contestant runs.

Start the walk-through timer by pressing the COUNT DOWN button on the timer. The count down can be paused and resumed with successive presses of the

COUNT DOWN button. To abort the count down, press the CLEAR TIME button.

To change walk through times, choose the Walk thru Time or Post-Walk thru option in the Advanced Menu. When prompted, key-in the walk-through time in minutes and seconds, followed by the ENTER key. A post walk through time of zero disables the post walk through feature. Press SETUP to exit the Advanced Menu, or continue with selection of other items in the Advanced Menu.

#### Time Format

The Polaris timer can display times in several different formats. To change the time format, choose the Set Time Format option in the Advanced Menu. Press NEXT CHOICE until the desired time format

is displayed, then press ENTER. Press SETUP to exit the Advanced Menu, or continue with selection of other items in the Advanced Menu.

#### Game Horn Times

# Advanced Menu (cont'd)

Common game horn times can be pre-entered into the timer to simplify entry of horn times during the event. There are eight "spots" to pre-enter horn times. These spots are identified as "Horn Option 1" through "Horn Option 8."

To pre-enter game horn times:

- Choose the Set Game Horns option in the Advanced Menu.
- 2) Press ENTER to set <u>Horn Option 1</u>.
- 3) Key in <u>Horn 1 Time</u> followed by ENTER. This is the opening sequence time before the gamble.

4) Key in <u>Horn 2 Time</u> followed by the ENTER key. This is the total time including the opening sequence. That is, add the opening sequence time and the gamble time to compute this value. For Snooker classes, enter zero for the horn 2 time.

Repeat this sequence as needed to load Horn Options 2 through 8. You skip forward and back through the eight horn options with the NEXT CHOICE and PREV CHOICE keys. When finished, press SETUP to exit the Advanced Menu.

## Light Curtain Start/Stop Options

To simplify timer setup, the timer automatically adjusts to different light curtain configurations without you having to specify which light curtain starts the timer, which stops the timer, which curtains are used for split times, etc. This operation is referred to as "automatic mode." The table below summarizes light curtain usage in the automatic mode. The numbers shown in the table refer to the "Eye #" label that is present on each light curtain.

Start #	Finish #	Split #
1	2	3, 4
2	1	3, 4
3	2	1, 4

Note that if light curtain #3 is used at the start line, then light curtain #2 must be used at the finish line.

Automatic mode does not support a course design which starts and stops with the same light curtain. In this case, the timer must be set to start and stop with light curtain #1. Curtains 3 and 4 can be used for split times.

To change between automatic and single light curtain modes, choose the Eye Usage option in the Advanced Menu. Press NEXT CHOICE as needed to display your choice of Start#1, Stop#1 or Automatic, then press ENTER. Press SETUP to exit the Advanced Menu, or continue with selection of other items in the Advanced Menu.

**Note:** This setting returns to "automatic mode" whenever the timer is turned off.

## Handswitch Settings

# Advanced Menu (cont'd)

Optional handswitches can be used with the timer to provide an automated table count for the judge's use, and/or to provide remote manual start/stop for a timekeeper. By default, handswitch #1 functions as a table timer and handswitch #2 functions as a remote start/stop button. These functions can be changed as follows:

 Choose the HandSw 1 Usage option (or HandSw 2 Usage for handswitch #2) in the Advanced Menu.  Press NEXT CHOICE to scan through the options of Not Used, Table Timer, or Start/Stop. Press ENTER when the desired use for the selected handswitch is displayed.

Press SETUP to exit the Advanced Menu, or continue with selection of other items in the Advanced Menu.

#### **Table Count**

The table count can be set to resume from where the count left off (Continue Count), or to restart from five (Restart Count). This setting defaults to Restart Count any time the timer is powered on or a new venue is chosen. (Prior to version 3.0, AKC, CKC and International defaulted to "Continue.")

Choose the Table Count option in the Advanced Menu to change this setting. Press NEXT CHOICE as needed to display your choice of Restant Count

or Continue Count, then press ENTER. Press SETUP to exit the Advanced Menu, or continue with selection of other items in the Advanced Menu.

**Note:** If the USDAA venue is selected, then the Table Count menu option is also present in the main menu.

**Note:** This setting is not saved and returns to the default value (Restart Count) whenever the timer is turned off.

## **Time Fault Options**

Choose the Faults/Second option in the Advanced Menu to change the number of faults that are added per second while the contestant is exceeding the course time. If desired, you can use this feature to set 2 faults/second for AKC Open or 3 faults/second for AKC Excellent.

**Note:** The faults/second setting is saved even when power is turned off, however, the value is automatically set back to 1 fault/second whenever any venue is selected in the main menu.

Choose the Fault Math option in the Advanced Menu to change the way faults are computed. Press

NEXT CHOICE as needed to display your choice of Round Time Up, Round Time Down or No Rounding, then press ENTER. Press SETUP to exit the Advanced Menu, or continue with selection of other items in the Advanced Menu.

For AKC and CKC venues, the fault math setting defaults to round down. For all other venues, the fault math setting defaults to no rounding.

**Note:** The fault math setting is saved even when power is turned off, however, the default values described above are restored whenever any venue is selected in the main menu.

## **Programming ID Codes**

# Advanced Menu (cont'd)

Each light curtain and handswitch has a unique electronic ID code. This ID code is transmitted along with other information whenever the beam is broken or the handswitch is pressed. For a set of light curtains or a handswitch to work with a particular timer console, the console must "know" the ID code of the light curtain being used. Similarly, if a wireless speaker is used, the wireless speaker must "know" the ID code of the console from which it receives commands.

Menu options allow you to program ID codes into the timer console (or into the wireless speaker) if needed. For example, if the timer is not responding to the light curtains, you can use the program option in the advanced menu to ID the light curtains back into the console. This often fixes most problems related to unresponsive light curtain or handswitches. The programming process is also required anytime you switch to a new or replacement red-capped light curtain or handswitch.

## **Programming Light Curtains and Handswitches**

**Important:** When programming light curtains or handswitches into the console, it is important that no unintended beam breaks or button presses occur from other equipment in the area. Otherwise, a light curtain in use in an arena 100 feet away might be accidentally programmed into the timer instead of the light curtain with which you are working.

It is best to have the light curtains or handswitch five to ten feet from the timer console when programming. To program in a light curtain or handswitch, choose Prog Eyes/HndSw from the

advanced menu. Press NEXT CHOICE as required to choose the proper light curtain (eye) or handswitch from the list, then press ENTER. The timer prompts you to break the beam or press the handswitch button. After breaking the beam or pressing the handswitch button, the timer displays ID code information for a few seconds and then prompts you for programming of the next light curtain or handswitch in sequence. Press SETUP to exit the Advanced Menu, or continue programming other light curtains or handswitches.

# Programming the Wireless Speaker

**Important:** When programming the console into a wireless speaker, it is important that no unintended speaker commands are transmitted by other consoles in the area. Otherwise, a console in use in an arena 100 feet away might be accidentally programmed into the speaker instead of the console with which you are working.

If light curtains need to be programmed into the console, they must be programmed into the timer before programming the speaker. It is best to have the speaker five to ten feet from the timer console

when programming. Always start with the amplified speaker OFF.

To program the console into the speaker, choose Program Speaker from the advanced menu. Then, turn on the speaker as instructed on the timer display. You should hear a sequence of beeps followed by the spoken word "Ready." At this point, the speaker is programmed. Press SETUP to exit the Advanced Menu, or continue with selection of other items in the Advanced Menu.

## Speaker Options

# Advanced Menu (cont'd)

Choosing Speaker Options in the Advanced Menu allows configuration of several options related to how the speaker is used. Use the NEXT CHOICE and PREV CHOICE buttons to scan through the available options, then press ENTER when the desired option is displayed:

To enable or disable use of the wireless speaker, choose between Wireless ON and Wireless OFF.

To choose between a buzzer (horn) sound or a high pitch tone, choose between Buzzer Tone and High Pitch Tone. Use different tones for adjacent rings.

To choose the voice gender and what word is spoken when the GO button is pressed, choose between Male GO, Female GO, Male Ready, Female

Ready, or No GO or READY. If a wired speaker is used, the only choices are to Speak GO or Don't Speak GO (female voice only).

Depending on where the speaker is placed relative to the start line, you many want the table count louder or quieter than the "GO"volume. Control this by choosing between Table Full Vol, Table Half Vol, Buzzer/Go Full, and Buzzer/Go Half.

Note: The volume settings return to full volume whenever the timer console is turned off.

After all changes have been made, press SETUP to exit the Advanced Menu, or continue with selection of other items in the Advanced Menu by choosing the Exit This Menu option at the end of the list of speaker options.

## **Split Time Options**

Choosing the Split Times option in the Advanced Menu allows configuration of how light curtains #3 and #4 are used for measuring split times. Use the NEXT CHOICE and PREV CHOICE buttons to scan through the available options, then press ENTER when the desired option is displayed:

To not print each split time (or to not send each split time to a computer) choose Print Times OFF. To print each split time (or send each split time to a computer) choose Print Times ON.

To choose between saving or not saving each split time in memory, choose between Save Times ON and Save Times Off.

Choose how long a split time remains on the optional scoreboard display by choosing between the available hold times of 1, 3, 5, 10 or 15 seconds.

After all changes have been made, press SETUP to exit the Advanced Menu, or continue with selection of other items in the Advanced Menu by choosing the Exit This Menu option at the end of the list of split time options.

## **Output Options**

# Advanced Menu (cont'd)

Choosing Output Options in the Advanced Menu allows configuration of several settings that control scoreboard, printer and computer output. Use the NEXT CHOICE and PREV CHOICE buttons to scan through the available options, then press ENTER when the desired option is displayed:

To enable or disable use of the wireless scoreboard feature, choose between Wireless SB ON and Wireless SB OFF.

To force a final time to remain on the scoreboard for some minimum amount of time, choose the SB Hold Time option. Scroll through the options of No Hold Time, Hold for 1s (or 3, 5, 10 or 15 seconds) and press ENTER when the desired option is displayed. The default setting is No Hold Time.

The scoreboard can display numbers in the scoreboard's default font or an alternate font by choosing between Default SB Font and Alternate Font.

The timer can output result data in either the default "printer" format — used by the optional printer and some computer programs, or in a computer-specific format used by other computer programs. Choose between Printer Output or Computer Output.

After all changes have been made, press SETUP to exit the Advanced Menu, or continue with selection of other items in the Advanced Menu by choosing the Exit This Menu option at the end of the list of output options.

#### **AKC Parameters**

Choosing the AKC Parameters option in the Advanced Menu allows configuration of settings related to computation of maximum course time and several FAST class parameters. In general, *these items should not be changed* unless AKC rules change. However, if a change needs to be made, use the NEXT CHOICE and PREV CHOICE buttons to scan through the available options, then press ENTER when the desired option is displayed:

To exit the AKC Parameter menu without making a change, choose the No Change option that is shown immediately upon entry.

Maximum course time can be computed as 1.5 times the standard course time (old AKC rules), or as a time value added to the standard course time (current rules). Choose the Max Time Adder option to update

this setting. Key in a value of zero to force the old rules (1.5 times standard course time), or key in the time to add to standard course time to compute maximum course time (e.g., 20 seconds). Press ENTER after keying in the time.

To change the additional time added for the FAST class, choose the FAST Add' 1 Time option. Key in the desired additional time (e.g., 20 seconds) followed by the ENTER key.

The remaining options are used to set FAST class standard course times for different dog heights. Do not modify these settings unless instructed to do so.

After all changes have been made, press SETUP to exit the Advanced Menu, or continue with selection of other items in the Advanced Menu by choosing the No Change menu option.

#### **Overview**

# Handswitch, Table Timer, Speaker

One or two wireless handswitches can be used with the timer to provide an automated table count for the judge's use, and/or to provide remote manual start/stop for a timekeeper. By default, handswitch #1 functions as a table timer and handswitch #2 functions as a remote start/stop button. These functions can be changed in the Advanced Menu as detailed previously.

The wireless handswitch is designed for operation within about 100 feet of the timer console. In order to operate, the handswitch must be turned on by pressing the red power button on the front panel. Once powered on, the handswitch is activated by pressing the green button on top of the handswitch with your thumb. For the most reliable operation, hold the thumbswitch away from your body as you push the button – similar to the way one tends to operate a TV remote control.

The handswitch operates over 70 hours from a 9 volt alkaline battery (*use only alkaline batteries*). The **Power** lamp on the unit glows steadily while the battery is good and flashes when the battery is low. The handswitch will operate at least two hours after the *first* indication of low battery. However, the two hour period is from the *first time* the low battery light begins flashing. If a unit with a low battery is turned off and then later turned back on, the lamp may glow steadily for some time before it starts flashing again. This does not mean there are two more hours of operation remaining at this point.

Once the **Power** lamp begins flashing, it is simplest to just replace the battery during the next break in your event – don't worry about trying to use the last few hours of the battery.

When storing the handswitch for an extended period of time, always remove the battery.

#### **Table Count Operation**

When used in conjunction with the amplified speaker, the system will audibly count the table count for the judge while the button on the handswitch is held down. This ensures a fair and consistent table count for all contestants.

During the run, the judge should press and hold the button as soon as the dog is in position on the table, then release the button when the count down completes or the dog leaves the designated position. In the latter case, when the dog returns to the proper position, press and hold the button once again, repeating this process as required. Settings in the Advanced Menu determine whether the count restarts from the beginning or continues from where it left off on each successive press.

## Speaker Operation

If you do not have the wireless speaker option, use the "PA Horn Cable" to connect from the jack labeled **Horn** or **Audio** on the timer console to either the red or white "Line In" jacks on the amplified speaker. Do not connect the cable if you have the wireless speaker option unless there is a problem with wireless operation.

Volume and tone controls are on the front of the speaker. The on/off button is on the back. Always have the volume at the minimum setting when turning the speaker on and off.

You can test the speaker by pressing and holding the HORN button on the timer. The GO button will speak "GO" every other time the button is pressed.

## FCC and Industry Canada Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, the user is encouraged to try to correct the interference by one or more of the following measures:

- 1) Reorient or relocate the receiving antenna.
- 2) Increase the separation between the equipment and the receiver.
- 3) Consult the dealer or radio/TV technician for help.

CAUTION: Changes made or modifications not expressly approved by the party responsible for FCC compliance of this equipment could void the user's authority to operate the equipment.

This device has been designed to operate with an antenna having a maximum gain of 3.0 dB. Use of an antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than required for successful communication.