



Generation 2
Operating Instructions
Software Version: OS5.0

Thank you for purchasing iTroll, the most innovative throttle controller ever unleashed on unsuspecting fish! A partial list of iTroll's industry first features include a fully weather-proof enclosure, 32 character lighted display, 1000 possible throttle positions, the last idle feature, and the ability to be used on a main (non-kicker motor).

You can take your iTroll "over the top" by purchasing software upgrades to enable Dual Motor Control (Kicker AND Main) and the revolutionary HUNT Mode that is often called "The Deadliest Tool in Fishing"!

iTroll has a free trial of the Hunt Mode (the "test drive") to allow you to determine if you would like to enable the feature permanently - see Section 6 for instructions.

*** Safety Precautions when using iTroll ***

- Always attend iTroll and boat's steering so speed & heading is managed at all times.
- Manage iTroll's cable so it does not present a tripping hazard.
- Make sure occupants of vessel are seated at all times.
- iTroll is only to be used to control boat at LOW speeds typically used when trolling.
- iTroll is to be used by Adults only!
- Do NOT use iTroll when under the influence of alcohol or controlled substances.
- Boating safety ultimately falls into the hands of the boat's operator. Use common sense at all times! Take a boating safety course and obey all published safety procedures and suggestions. Always use an ignition switch safety lanyard!

*** www.iTroll.us for VIDEOS of product operation ***

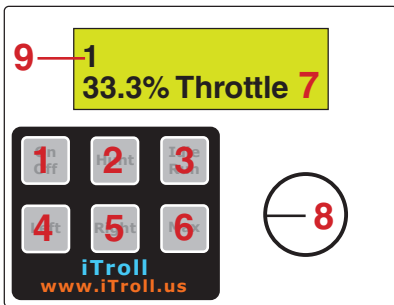


Figure 1

iTroll's Sealed Dial Shaft

iTroll has a weather proof enclosure and dial. The dial's shaft seal gives the dial some "spring back" where if turned to the right and released, it will return slightly left and vice versa. This is normal. The spring back will diminish as the seal breaks in, but will always be present to some degree. All sealed shafts behave in this manner.

iTroll's Buttons & Components:

- 1 - On / Off: Turns iTroll on and off. Also used for other functions.
- 2 - Hunt: Used with Hunt Mode. Also used for other functions.
- 3 - Idle / Run: Used to swap between idle and trolling speeds.
- 4 & 5 - Left & Right: Used to control other manufacturer's kicker motor steering units (steering units NOT included with iTroll)
- 6 - Max: Engages maximum throttle. Also used for other functions.
- 7 - LCD Display with Backlight
- 8 - Speed / Throttle Dial (Knob)
- 9 - Indicates the motor iTroll is operating, If iTroll is NOT dual motor enabled, this is always "1". If dual motor enabled, it is a "1" for kicker and "2" for main motor.

*** Section 1: Turning iTroll On and Off ***

1.1: Turn iTroll On: Press **On** Button. iTroll goes to Manual throttle control (Section 2).
Shortcut: If your iTroll is HUNT enabled, go directly from off to HUNT mode by pressing and HOLDING the **Hunt** button and then pressing **On**. Tip: Think "HUNT On".

1.2: When iTroll starts up, you be able to access the options menu where you can turn DRAG mode (see 2.6) on and off and select which motor (1 or 2) you want iTroll to control if you have a dual motor set up.

1.3: Turn iTroll Off: Press and HOLD **Off** Button for 3 seconds.

Shortcut: Pressing **Max** button when off sequence is counting turns iTroll off immediately.

*** Section 2: Manual Throttle Operation ***

2.1: Start motor you will be trolling with and let it warm up until it idles smoothly then Turn iTroll on (See 1.1).

2.2: TILLER motors: Release tension knob on throttle handle to prevent sticking, place motor at idle speed and engage forward gear.

REMOTE THROTTLE motors: Put motor in gear and at idle speed.

2.3: iTroll's screen will read "0.0% Throttle" or "Turn Dial to Zero or Press Idle" if dial is above zero. Note: iTroll has a safety feature that when turned on, if the dial is above zero, it has to be turned to zero or you must go to idle before it will control the motor's throttle. This is to prevent the boat from accelerating unexpectedly.

2.4: Set motor speed with speed control dial. iTroll displays throttle setting in %.

2.5: Neutral Safety Feature (remote throttle motors only): Placing your boat's gear shift in neutral will place iTroll in idle. iTroll will display throttle setting before shifter went to neutral. This feature prevents damage to your gear box as the motor will be at idle speed when it is put back into gear. When shifter is put back in gear, iTroll will return to Step 2.3 above. Note: For feature to be operational, iTroll will need optional parts to interface to boat's shifter.

2.6: New in OS5 - DRAG Mode:

DRAG Mode allows you to go to a slow throttle setting that is higher than idle so you can fight fish and minimize snagging of multiple lines. Especially useful when fishing planer boards and / or downriggers!

2.7: New in OS5 - Optional remote Idle / Run button(s):

You can purchase (at additional cost), sealed touch pads that can be mounted anywhere in your boat. Additionally, you can run multiple pads in different locations! These touch pads work EXACTLY like the Idle / Run switch on iTroll's main key pad. You can mount these pads anywhere you like, at the transom, bow or on the gunnel. See electronics installation manual for wiring instructions.

2.8: Idle / Run button - Used when you hook a fish:

If DRAG mode is ON (see 1.2 to turn DRAG mode on or off), and the throttle setting being used is HIGHER than the stored drag speed setting, the first press of the **Idle** button takes you to the DRAG Mode screen. Drag speed can be adjusted from .5% - 25% throttle in .5% steps by pressing the **Hunt** button to increase and the **Max** button to decrease. Pressing the

Idle button when in DRAG Mode idles the motor.

If DRAG mode is OFF, or if DRAG Mode is on and the throttle being used is LESS than the stored Drag speed, pressing the **Idle** button idles the motor.

2.9: Once fish is released or boated, resume previous trolling speed by pressing the **Run** button. You can exit idle mode at a different speed than you entered by turning the dial. iTroll's display will show what throttle setting will be engaged when exiting idle.

iTroll Pro Staff Tip! If it's windy, when you idle the motor, the wind can drastically alter the boat's heading. You can exit idle at zero throttle and then dial in just the right amount of throttle to maintain your intended heading when an angler is fighting a fish.

2.10: The **Max** button is used to apply a burst of power to raise lure depth, set hook after a fish strike, or to apply extra power when needed to control boat in windy conditions.

iTroll's Max throttle button has a industry first feature, "SCS" - Secondary Cruising Speed that allows you to maintain a higher throttle setting than the dial is set to. To use SCS: When increasing throttle with the Max throttle button, you can stop the throttle from advancing and LOCK in that particular throttle setting by pressing the idle / run button. iTroll will HOLD that throttle setting until you release it by pressing the idle / run button again.

iTroll Pro Staff Tip! Use Max function to rapidly let line out once bait "grabs" water. Watch for strikes! - The falling bait often gets hit!

2.11: Last Idle Feature: Press the **Hunt** button to display the throttle level prior to idling the motor in Step 2.7. Most often this is the speed where you last hooked a fish.

2.12: Hunt Enabled iTroll's only - Enter Hunt Mode by:

A) First idling the motor by pressing the **Idle** button.

B) Enter HUNT Mode by pressing the **Hunt** button.

***** Section 3: Operation of iTroll in Hunt Mode *****
***** HUNT Enabled or HUNT Test Drive iTroll units only *****

If using HUNT Mode for the first time, you must set Hunt's safety limits for your particular boat - see sections 7 AND 8. Additionally, the Hunt parameters initially programmed into your iTroll are very conservative and will most likely need to be reprogrammed (step 3.3 below).

Hunt mode is accessed through Step 2.12 of manual control of the throttle, repeated here:

2.12: Hunt Enabled iTroll's only - Enter Hunt Mode by:

A) First idling the motor by pressing the **Idle** button.

B) Enter HUNT Mode by pressing the **Hunt** button.

3.1: iTroll's HUNT "Start" screen will show a summary of last used Hunt parameters (described in Section 5).

iTroll stores EIGHT unique HUNT programs for each motor. You now have HUNT programs for different conditions (fishing up wind or down wind), or for different baits / presentations (bottom bouncers vs. stick baits). Two of these programs were specifically designed to add "injured" or "fleeing" behaviors to your baits! See section 5.1.

The bottom left corner of the display shows the HUNT program that is currently loaded. Hunt programs are designated as 1A - 1H for motor 1 and 2A - 2H for motor 2. You toggle between HUNT programs by pressing the Max button when the HUNT "Start" screen is displayed. Please note that the e and f program addresses are in lower case for easy identification of the "cut" Hunt programs. See 5.1 for description of cut and bump programs.

3.2 Press **Hunt** button to start HUNT Mode.

3.3: To change any of the Hunt Parameters OR any of the Hunt Limits, idle the motor by pressing and releasing the **Idle** button. Press the **Hunt** and **Max** buttons **at the same time** and then reference Section 4 of these instructions.

3.4: You can jump to the next throttle step by pressing the **Hunt** button.

3.5: If you get a hook up, pressing the **Idle** button takes you directly to motor idle or to DRAG Mode, depending on throttle level and if DRAG Mode is on (see 2.6 and 2.8).

iTroll Pro Staff Tip! If it's windy, when you idle the motor, the wind can drastically alter the boat's heading. You can exit Hunt Mode by pressing and releasing the off button which returns you to manual throttle mode. You can then dial in just the right amount of throttle to maintain your intended heading when an angler is fighting a fish. When fish is released or boated, return to Hunt via step 2.12.

3.6: When motor is idled, pressing the **Run** button will resume the Hunt program.

3.7: The **Max** button is used to apply a burst of power to rapidly let line out, raise lure depth, set hook after a fish strike, or to apply extra power when needed to control boat in windy conditions. When Max button is released, Hunt Mode resumes. The "SCS" (Secondary Cruising Speed) feature described in step 2.10 also works in HUNT Mode.

3.8: Return to "Start" screen by pressing **Off**.

3.9: To exit Hunt Mode and return to manual throttle control, simply press and release the **Off** button.

***** Section 4: Reprogramming Hunt Parameters *****

CAUTION! NEVER use a step size between throttle settings that may cause the boat to accelerate or decelerate at a rate that can cause occupant(s) to lose their balance!

Hunt mode programming is accessed through Step 3.3 of Hunt Mode operation, repeated here:

*3.3: To change any of the Hunt Parameters OR any of the Hunt Limits, idle the motor by pressing and releasing the idle button. Press the **Hunt** and **Max** buttons **at the same time** and then reference Section 4 of these instructions.*

4.1: You will now see the screen to change the first parameter.

4.1A: SKIP this step if you do NOT want to reprogram the Hunt Low and High limits: If you would like access the menu to change the Hunt Low and High limits, press the **Idle** and **Max** buttons **at the same time**. These limits are described in Section 7.

4.2: When a reprogramming menu is accessed, you can do one of two things:

A: If you want to leave the parameter unchanged, you can skip to the next menu by pressing the **Off button.**

B: You can change the parameter by turning the dial. When iTroll's display shows the new value that you want to store, press the **Hunt button.**

Note: The MinSpeed of a HUNT program MUST be LESS than the MaxSpeed. If the MinSpeed is reprogrammed to a number that is the same or greater than the MaxSpeed value, iTroll recognizes this and will not allow you to skip reprogramming the MaxSpeed.

4.3: Parameters for Hunt Memory addresses 1A - 1D and 2A - 2D:

The parameter menus are presented in this order in the programming sequence:
MinSpeed - MaxSpeed - StepSize - StepTime

4.4: Parameter menus for Hunt Memory addresses 1e - 1f and 2e - 2f:

The parameter menus are presented in this order in the programming sequence:
CutSpeed / CutSpeed Time (in Seconds) / TrollSpeed / TrollSpeed Time (in Minutes).

4.5: Parameters for Hunt Memory addresses 1G - 1H and 2G-2H:

The parameter menus are presented in this order in the programming sequence:
TrollSpeed / TrollSpeed Time (in Minutes) / BumpSpeed / BumpSpeed Time (in Seconds).

iTroll Pro Staff Tip! For best precision keep step size to smallest value that makes a noticeable change in boat speed. Smaller step times work better. Its better to try 9 speeds in 9 minutes (1 min. steps) rather than staying at one speed for 9 minutes (9 min. steps).

4.6: iTroll will return to step 3.1.

***** Section 5: Description of HUNT Mode *** (Speed Varying Program)**

iTroll stores EIGHT separate HUNT programs for each motor (Kicker & Main). You can now have HUNT programs for different conditions (example: fishing up wind or down wind), or for different baits / presentations (example: bottom bouncers vs. stick baits).

5.1: There are two types of unique HUNT programs that were designed to mimic a wounded or fleeing bait to trigger the predatory instinct of trophy fish. They are two speed programs where the trolling speed of the boat is interrupted at programmable intervals. In the "cut or wounded" HUNT program the throttle goes to a lower setting for a programmable time interval and then the boat resumes trolling speed. The "bump or fleeing" HUNT program works opposite of the "cut" program, the boat briefly accelerates to a higher throttle setting and then resumes trolling speed.

HUNT Mode is a software upgrade that is in every iTroll. **Once unlocked, HUNT Mode is permanently enabled for the life of your iTroll.** Call your dealer or Innova (maker of iTroll) at (909) 971-0000 to purchase an unlock code. Please note that unlocking HUNT Mode is performed in the field and takes just a few minutes.

iTroll's HUNT Mode is the most powerful and revolutionary feature ever put into a throttle controller. Before iTroll, throttle controllers were purely reactionary and took a passive role in the fish catching experience. In comparison, an iTroll in HUNT Mode is literally stalking the fish and taking an ACTIVE role in your angling success. HUNT Mode is THE answer to any troller's worst nightmare - the "Speed Rut". It's no wonder that an iTroll in HUNT Mode is considered to be **"The Deadliest Tool in Fishing"**!

HUNT Mode is a speed varying software program that constantly steps between programmable slowest and fastest trolling speeds. The first four HUNT programs that iTroll retains in it's memory are "searching" programs that stop at a number of speeds on the way up and down for a time interval that you set. The second four programs in memory are two each of the "cut" and "bump" programs.

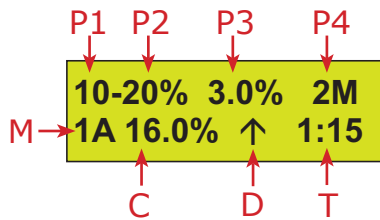
5.2: For example: You can set a program to vary the boat's speed from 10% to 20% throttle in 3% steps with the boat maintaining each throttle speed for one minute. For this program, the throttle will behave as follows:

10% - 13% - 16% - 19% - 20% - 17% - 14% - 11% - 10% repeat.

iTroll's HUNT Mode is the most efficient way to determine what baits and speeds are the most productive to fish. If you look at the speed program in the previous paragraph, there are eight speed combinations. If there are 4 different baits being trolled, HUNT Mode will allow you to make 32 bait / speed presentations (4 baits X 8 speeds) to the fish every 8 minutes!

This is the information displayed on iTroll's screen when in HUNT Mode:

Memory addresses A - D (see M, below):



Memory addresses E - H

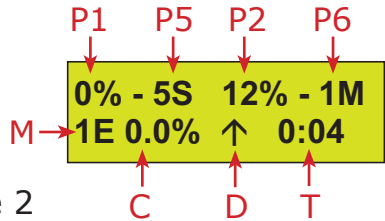


Figure 2

The display's top line shows the parameters of the HUNT Program being run. A HUNT program contains **four programmable parameters**:

- P1 = "MinSpeed" (Lowest throttle setting of the program)
- P2 = "MaxSpeed" (Highest throttle setting of the program)
- P3 = "Throttle Step Size" (Size of steps is from 1 - 15%)
- P4 = "Step Time" (Minutes between steps from 1 - 12)
- P5 = Seconds (Memory e - f) or Minutes (Memory G - H) at MinSpeed
Seconds can be between 1 - 60 / Minutes can be between 1 - 12
- P6 = Minutes (Memory e - f) or Seconds (Memory G - H) at MaxSpeed
Seconds can be between 1 - 60 / Minutes can be between 1 - 12

The bottom line of iTroll's display shows where you are in the HUNT Program:

- M = Memory address of the HUNT program that is being run
- C = Current throttle level
- D = Direction of next step (Up or Down)
- T = Time remaining until throttle step occurs

Tips from iTroll's designer on mastering the **ULTIMATE** power of Hunt Mode:

HUNT programs A - D:

- Make your Hunt programs stop at different speeds on the way up than on the way down for **MAXIMUM** speed variety! Subtract your MinSpeed setting from your MaxSpeed setting. If the difference is an **EVEN** number, use **ODD** steps and vice - versa. See 5.2 for an example.

- When Hunt finds a speed that the fish prefer (let's use 18% as an example), DON'T go to manual throttle and static troll at 18%! Reprogram your Hunt parameters to bracket 18% so when the fish's speed preference changes (it always will), you will notice the pattern where strikes occur and can simply re-bracket your Hunt parameters up or down accordingly! A sample program that brackets 18% might be (15-20%, 2%, 2Min). This Hunt program will cover these speeds: 15% - 17% - 19% - 20% - 18% - 16% - 15% - repeat. Please note that we used this tip WITH the first one to cover EVERY speed from 15 - 20%!

- The previous bracketing program is more effective than a straight 1% step program (example: 15-20%, 1%, 2Min) that hits the same speeds because the baits have more of a "fleeing" or stalling action during a speed change with the 2% step program.

HUNT programs E - H:

- You can vary your presentation by varying the degree and duration of your cut or bump speeds. Put a bait in the water and try a moderate cut or bump (5%) for 10 - 15 seconds vs. a larger cut or bump (10 - 15%) for 1 - 4 seconds.

***** Section 6: "Try Before You Buy" *** A Free Test drive of iTroll's HUNT Mode**

If you have not purchased the software upgrade to permanently enable HUNT mode, every iTroll has a 100% free "test drive" of HUNT Mode. Once activated, the test drive allows you to use HUNT Mode for the next 50 On and Off cycles of your iTroll. Once the 50 cycles are used, the test drive ends. To activate the test drive, you must access iTroll's exclusive "Digital Padlock" that allows you to activate software upgrades in the field.

6.1: iTroll must be OFF.

6.2: The Digital Padlock is accessed by **HOLDING** the **Idle** button down, then **HOLD** the **Max** button down (at this point you are holding down two buttons), then press and release the **On** button. The Digital Padlock will activate and the screen will read "Lock #1".

6.3: Turn the dial so the number on the display's second line is zero. Press the **Hunt** button 4 times (padlock combination = 0, 0, 0, 0) to activate the HUNT Test Drive. Note: If the test drive has already been used in your iTroll, you will see "Invalid Combo" on iTroll's display instead of the Test Drive confirmation screen.

6.4: When using the Test Drive, there will be a screen that appears when you turn on your iTroll that tells you how many times you have used the Test Drive.

**** Section 7: Determine Safety Limits of Hunt Mode for Your Boat **** *** HUNT Enabled or Hunt Test Drive iTroll units only ***

HUNT mode has two limits that are typically set only **ONCE** for a specific boat. If needed, these limits can be changed at any time if the amount of weight in the boat varies a lot or if the boat is used in greatly varying altitudes (motors lose power at altitude).

7.1: Hunt Low Limit (HLL):

This sets a ceiling on the MinSpeed value of a HUNT program. This is a convenience limit so you don't troll too fast.

7.2: Hunt High Limit (HHL):

This sets a ceiling on the MaxSpeed value of a HUNT program.. This is safety limit! iTroll is NOT designed to control boat at high speeds.

There are many variables in boats (hull design, weight, motor HP, prop design, altitude, etc.). A water test is necessary to determine the best Low and High limits for a particular boat. Note: If your iTroll is set up to control dual motors, iTroll remembers independent limits for EACH motor. Determine the values for both your MAIN and KICKER motors.

7.3: It is assumed that you are familiar with the basic operation of iTroll described in Section 2. If not, spend a few minutes operating your boat using iTroll.

7.4: On a stretch of water free from obstructions and other boat traffic, run an assortment of baits close to your boat so you can see their "action". It may be necessary to place the rod tip in the water to get bait deep enough to see it's action. Using iTroll's display, note the slowest and highest speeds where your baits have acceptable action. Write down these speeds so they can be used for Low and High limit programming. Take note of wind and current conditions as you may have to compensate for them when setting the limits.

***** Section 8: Programming HUNT Mode Low and High Limits *****
***** HUNT Enabled or HUNT Test Drive iTroll units only *****

8.1: The menu to reprogram the HUNT Low and High limits are a side menu when you program iTroll's regular parameters (MinSpeed, MaxSpeed, Step Size and Step Time). Simply follow the steps in Section 4 and make sure you **perform Step 4.1A**.

***** Section 9: Dual Motor Control Feature *****

Dual Motor Mode is a software upgrade that is in every iTroll. **Once unlocked, it is permanently enabled for the life of your iTroll.** Call your dealer or Innova at (909) 971-0000 to purchase an unlock code. Please note that unlocking Dual Motor Mode is performed in the field and takes just a few minutes. When dual motor enabled, iTroll can control BOTH your main and kicker motors.

If an iTroll is both Dual Motor and Hunt Enabled, it will remember separate Hunt Parameters for EACH motor.

Note: Servo motor installation is required on throttle of second motor to allow iTroll to control it. Parts to do so are available at additional cost.

***** Section 10: Left and Right Steering Buttons *****

iTroll can control other manufacturer's steering units (NOT included with iTroll) that link to your kicker motor. Contact the manufacturer of your particular steering unit for instructions on how to interface it with iTroll. Please see iTroll's installation instructions for technical information on steering outputs.

iTroll's steering buttons only operate when iTroll is ON.

iTroll Limited Warranty

Innova Design & Distributing, Inc. (Innova) warrants iTroll to be free from manufacturing defects under normal use and conditions for two (2) years from date of original user purchase. Innova, at its sole discretion, will either repair the product or replace the product, provided the manufacturing defect is verified along with proof of purchase. To obtain warranty service call 1-909-971-0000.

This warranty is void if the product is:

- A) Damaged through negligence, misuse, abuse or accident.
- B) Modified, repaired, or tampered with by anyone other than Innova.
- C) Units on which the serial number has been defaced, modified or removed.

This warranty does NOT cover:

- A) Damage due to improper installation.
- B) Fire, smoke, or heat damage.
- C) Damage or improper operation of unit caused by customer abuse, misuse, negligence, or failure to follow correct installation procedures as provided with product.
- D) Costs of shipping of the product to and from Innova for warranty service

This warranty is non-transferable and applies only to the original purchaser and does not extend to subsequent owners of the product. Any applicable implied warranties, including the warranty of merchantability, are limited in duration to a period of the expressed warranty as provided herein beginning with the date of original purchase at retail and no warranties, whether expressed or implied, shall apply to the product thereafter. Innova makes no warranty as to the fitness of the product for any particular purpose or use. The extent of Innova's liability under this limited warranty is the repair or replacement provided above and, in no event, shall Innova's liability exceed the purchase price paid by the purchaser of the product. Under no circumstances shall Innova be liable for any loss, direct, indirect, incidental, special, or consequential damage arising out of or in connection with the use of this product.

INNOVA

Design & Distributing, Inc.

441 W Allen Ave #102

San Dimas, CA 91773

Ph: 909.971.0000

Fax: 909.971.9333

email: iTroll4Fishing@iTroll.us