

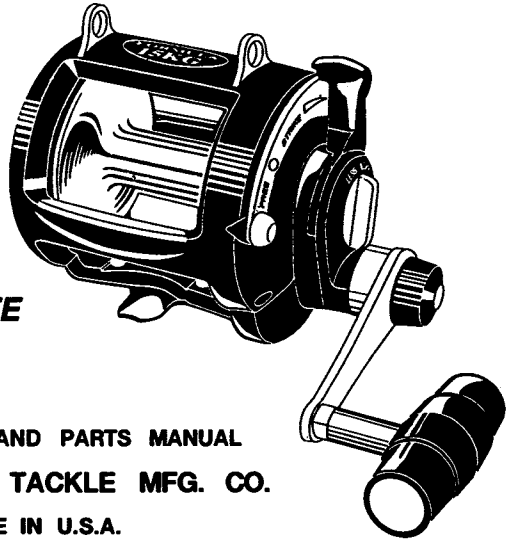


# PENN<sup>®</sup>

## **FORMULA<sup>™</sup>**

**10KG and 15KG**  
**TWO SPEED GRAPHITE**  
**LEVER DRAG SERIES**

**10LD and 15LD**  
**SINGLE SPEED GRAPHITE**  
**LEVER DRAG SERIES**



INSTRUCTION AND PARTS MANUAL  
PENN FISHING TACKLE MFG. CO.  
MADE IN U.S.A.

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carry anymore.

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**HT-100| Drag System.** At the heart of the Formula™ drag is a large HT-100| friction washer, for smooth, trouble-free performance. Even though the Formula™ drag washer is protected from contaminants, the material has been proven to work well under all kinds of adverse conditions. HT-100| resists any contaminants that do work their way into the reel, plus this advanced washer lasts a long time and maintains a wide range of smooth settings. When it is time to service the drag, a special feature of the Formula™ drag washer is that it's reversible. Since it is an eared washer, one surface works when the drag is engaged. To get twice the life out of your Formula™ drag washer, simply reverse it while it's apart for service.

**Machined Gears.** In the 10LD and 15LD series, a high strength bronze alloy main gear and a stainless steel pinion gear create the strong gearing needed in an offshore single speed reel. In the 10KG and 15KG series, machined stainless steel main and pinion gears form the strongest gearing system for offshore two speed reels.

**Four Stainless Steel Ball Bearings.** For unparalleled smoothness in casting, reeling and battling oversized gamefish, nothing beats precision stainless steel ball bearings. Penn included not one or two, but four ball bearings for the ultimate in overall reel performance.

**Aluminum Spool.** The machined aluminum spool is gold anodized in a lustrous gold finish. Formula™ spools are both lightweight and strong to withstand the tremendous pressures of light tackle angling for game fish like tuna, billfish, shark and the like. Aluminum keeps the spool's weight light for casting and easy free spooling, and anodizing protects the finish for season after season of hard offshore fishing.

**Sturdy Handles.** A powerful, reinforced barrel handle is standard on Formula™ models. Strong shaft is just the right length for easy cranking. Lubrication port on handle knob for easy maintenance.

**Other Quality Features.** Stainless steel reel stand. High strength graphite one piece rod clamp allows extra measure of strength and security of reel to rod. Harness lugs for kidney, shoulder and other special harnesses.

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## FORMULA™ OPERATING FEATURES

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**Pre-set Drag Control.** Working in conjunction with the drag lever, the pre-set keeps your drag setting within safe limits. Turn in (clockwise) for more drag, out (counterclockwise) for less pressure. Set pre-set to desired line tension with drag lever at strike button. When adjusting the pre-set knob, always pull back the drag lever to the "free" position to eliminate any strain on internal components and to ensure accurate drag settings. For the most accurate drag settings, be sure to use a good quality spring scale.

## INTRODUCTION

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Congratulations on the purchase of your new Formula™ series reel, Penn's new single and two speed graphite lever drag reels. These reels combine all of the latest manufacturing techniques with Penn's old world commitment to making the highest quality fishing reels. Built with pride in the U.S.A., these lightweight, tournament-style lever drag reels are perfect for a number of inshore and offshore fishing conditions. To get the most out of your new Formula™ reel, take a few minutes to read over this manual and hold onto it for future reference. Good fishing!

## THE TWO SPEED ADVANTAGE

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The two speed advantage on the Formula™ 10KG and 15KG reels is deadly on fish. There are countless situations in which you can put the two speed advantage to work for you. Suppose you're trolling and get a strike on your 10KG or 15KG reel. It's a tuna, and you've got the arduous chore of pumping and winching him back up to the surface. You gear down to low and start working the fish up. The low gear ratio gives you the power when you need it. Then suppose the fish, for whatever reason fish do what they do, charges and runs towards you, creating slack in the line and an increased opportunity to throw the hook. You've got to get that slack up fast. That's easy -- just shift into the high gear ratio and in no time you've caught up to the fish. Or suppose you're backing down on a billfish and you need speed -- shift into high. Or you're changing lures or checking bait, or getting the line out of the way because a fish is on another line... Examples of using the high or low gear could go on and on, but simply put, you would use high gear when you need speed. Conversely, you would need low speed when speed is of no concern, but putting pressure on the fish is.

The powerful low and snappy high gear ratios are always ready for work, and shifting into either is always easy, even when you have a fish on.

The Formula™ 10KG and 15KG reels feature one touch, push button shifting.

Touch only one button to shift from low to high and vice versa. To shift into low, push in the round button at the end of the gear sleeve (where the handle shaft meets the reel). The spring-loaded button will stay down in low gear.

To shift into high gear, press in the rectangular release button at the end of the gear sleeve (marked HI) and the round button will pop up. This is your indication that you are in high gear. A quick check of the round button will let you know whether you are in high or low gear. When you can't see or feel the profile of the round button, you are in low gear; when you can, you are in high.

## FORMULA™ QUALITY FEATURES

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**One Piece Graphite Frame.** Graphite composite construction creates a unified frame that is not only light, but also incredibly strong. Precision one piece design makes for perfect spool alignment. Handsome, extruded aluminum spacer bar is deep anodized for a touch of elegance as well as for protection against the elements. Durable, corrosion resistant metal inserts protect spacer bars against line wear and adds to overall strength and rigidity of the one piece frame design.

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**Lever Drag.** A 120° arc quadrant lever drag provides a wide range of various drag pressures, from no drag pressure in the “free” position, to a fighting range in the “strike” position, to a maximum setting in the “full” position, provided you are using the recommended line.

The drag lever is in the “free” spool position when it is moved completely to the rear stop—the stop closest to the fisherman. The lever is in the “strike” position when you push the lever forward up to the “strike” button. To apply the maximum drag pressure, push the strike button in and advance the lever to “full” at the extreme forward stop. If you need to instantly shift the lever back down to the “strike” position or below, there’s no need to push the “strike” button; the lever will automatically ride over the button.

The reason you must push the “strike” button when advancing the lever past the “strike” position is a safety precaution. When getting ready to strike and set the hook on a fish, you should advance the lever to “strike.” The button provides a secure, positive stop so that you can instantly advance the lever to strike and fight your fish with confidence. If you advance the drag lever to “full”, having to first depress the “strike” button serves as a reminder to use the “full” position with caution. Of course, if you have to back the drag lever off in a hurry, you can do so without having to depress the “strike” button.

Pull the drag lever all the way back to the “free” position when storing your Formula™ reel. This will relieve any pressure on springs and other internal components. Putting the warning clicker on will prevent line from slipping off the spool easily while your reel is in storage.

The Formula™ series reels contain a special lever drag operating feature, which will help prevent you from accidentally going into free spool when reducing the drag against a fish. As you pull the lever close to free spool, you will feel a resistance on the lever, which is normal. This is your reminder that your drag setting is low and that you are approaching free spool. To go completely into free spool, it is necessary to overcome this resistance and pull the lever all the way back to the “free” position. **WARNING:** Do not attempt to cast when the reel has any drag (make sure you are in free spool). Attempting to cast with any drag may cause your lure or sinker to fly back and cause injury.

**Penn Warning Clicker System.** Push down for warning clicker to sound when line is going out, push up to disengage warning clicker. The warning clicker should be used sparingly as a warning device or to help prevent over runs when setting up the rod or when letting line out. Don’t fish with your clicker on all of the time – you’ll wear the clicker prematurely, plus you’ll mark yourself as a beginner!

## FORMULA™ TWO SPEED SERIES SPECIFICATIONS

MODEL	LINE CAP.	GEAR RATIO	WEIGHT
	YDS/LB MONO METERS/MM		
10KG	<u>800/20</u>	3.8-1	<u>38</u>
	730/0.45	2-1	1080
15KG	<u>600/30</u>	3.8-1	<u>41</u>
	550/0.55	2-1	1165

## FORMULA™ SINGLE SPEED SERIES SPECIFICATIONS

MODEL	LINE CAP.	GEAR RATIO	WEIGHT
	YDS/LB MONO METERS/MM		
10LD	<u>800/20</u>	3.8-1	<u>36</u>
	730/0.45		1020
15LD	<u>600/30</u>	3.8-1	<u>39</u>
	550/0.55		1105

## HOW TO USE YOUR FORMULA™ REEL

**Pre-Setting the Drag.** Your drag should start to slip when the line reaches 1/4 to 1/3 the pressure required to break the line. This builds in a good “safety margin” to allow for a number of possible conditions (nicks or frayed line, improperly tied knots, depletion of line on the spool, etc...).

Mount your Formula™ reel on a rod (Penn manufactures a number of rods to match the Formula™ series) and be sure to install the rod clamp. Spool it with good quality line (20 lb. test on the 10LD & 10KG, 30 lb. test on the 15LD & 15KG is ideal). Use a good quality spring scale to obtain the proper strike setting.

Use the Formula™ Drag Settings chart and work toward getting the proper strike setting when the lever is advanced up to the “strike” button. After you reach the proper strike setting, your full setting should automatically be somewhere within the range indicated on the chart.

Setting the drag to the proper strike setting is a trial-and error-process. For instance, if you're using the recommended 30 lb. test line on a 15KG, adjust the drag to slip at 7-10 lbs. of pressure on the spring scale, when the drag lever is up to the strike position. In the full position, the drag should start to slip at about 12-16 lbs. of pressure. Hold your rod about 60° high (to simulate actual fish-fighting conditions) when pre-setting the drag.

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An important note: before turning your pre-set knob, during the trial-and-error process of pre-setting the drag, always back the drag lever off into the “free” position. In fact, any time you turn the pre-set knob, make sure your drag lever is in the “free position. This small but important precaution assures the most accurate drag settings and eliminates any unnecessary strain on internal components.

## FORMULA™ DRAG SETTINGS

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MODEL	LB. TEST LINE	STRIKE SETTING	FULL SETTING
10LD, 10KG	20	4 -7 lb.	10-12 lb.
15LD, 15KG	30	7-10 lb.	12-16 lb.

**Using the Drag Lever.** Once your drag is pre-set, you can use the drag lever just like an automobile brake. The higher you push the lever, the more drag pressure you apply. The beauty of a pre-set/lever drag reel is that you always know just about how much drag pressure you are applying. After your drag is pre-set, you know that when you push the lever up to the “strike” setting, you are at the ideal fighting pressure. When you pull the drag lever back to “free”, there’s no drag pressure and when you need extra drag pressure, (10-16 lbs.), you can push the lever all the way past the strike button to “full.”

Use the full position on the drag lever conservatively, like a reserve, when you really need to apply extra pressure. Appropriate times to use the full setting are at the beginning of the run of a big fish, or at the end of a fight if you’re up to an extra heavy or double-line leader. Never push the drag lever into full when your spool is more than one-third empty; as a spool is being depleted, there is actually more drag pressure on the line than when the spool is full.

**Some Lever Drag Tips.** Your local Penn dealer can fill your reel properly with the correct line for your type of fishing. Keep your reel filled with good quality line. Recommended “strike” and “full” settings are calculated on the condition that the spool is filled with line to approximately 1/8” below the shoulder of the spool flange.

Wrap the end of the line around the spool arbor and anchor it securely by tying a good knot. A couple of half hitches will do the job and ensure that the line does not slip on the spool. When winding line on, pack the spool hard by applying tension. Every half dozen turns of the spool, crisscross the line. Both of these precautions will help prevent the line from becoming embedded and pinched, which always seems to happen when a big fish is on.

On your way offshore, keep the reel under cover instead of leaving the rod/reel in a rod holder. Spray from a moving boat can drive salt water into the innards of a reel with the same force as a high pressure hose. When you’ve reached the fishing grounds, that’s the time to put the rods/reels in the holders. And remember to remove them again for the trip back home.

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Periodically check your drag settings with a spring scale, especially after a big fish or two. While Penn's HT-100 drag washers wear well, you should take full advantage of the accuracy of the lever drag system by confirming your drag settings often. That will help give you added confidence in your gear when that extra large fish bores for the bottom.

## **CARE AND LUBRICATION**

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Your Penn reel is quality manufactured for maximum durability, but like any precision instrument, reasonable care will ensure its best performance through many seasons.

After each fishing trip, the reel should be cleaned. After fishing in salt water, wipe or wash the reel with fresh water, preferably warm, to remove any accumulated salt deposits.

Should you wash the reel, be careful not to use a driving force of water, since this will force the salt deposits into the reels internal mechanisms. Rather, use a very fine spray to dissolve the salt on the external parts of the reel.

Dry excess moisture from the reel, and then, sparingly, lubricate all exposed areas. Many fishermen use a pressurized spray oil for quick, easy protection after washing or wiping down their reels. Try not to get any oil on the fishing line, but should any excess spray oil get on your line, it will do no harm if you wipe the excess off. Other fishermen will apply a light coating of oil with a rag to the exposed metal parts on the reel for protection against the elements.

Your reel should be stored in a cool, dry place. Do not store in a plastic bag, as condensation may develop and damage the reel.

Periodically examine your reel and tighten loose screws and fittings. Depending upon use, your reel should be overhauled at least once every season.

Frequently lubricate all external frictional points. For best results, use Penn's reel lube and grease. Remember, only a few drops or dabs are sufficient in most cases. Do not over lubricate!

For a more thorough, internal lubrication and/or overhaul of your Penn reel, carefully break the reel down using the exploded view as a guide. Penn recommends doing this only if you are already familiar with working on reels or other precision-oriented instruments. If not, your best action would be take your reel to a Penn dealer for service, or send it to the Penn factory for servicing.

## **PENN SERVICE & PARTS PROCEDURE**

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Unlike many import companies, Penn prides itself in providing fast and excellent service at reasonable prices. This is possible because most Penn products are made in the U.S.A. and Penn maintains a policy of designing models to maximize Product and part continuity. Penn does not change Products solely for the sake of change, but only when the change results in an improved Product.

Many Penn Products have been in service for 50 years or more. Our customers marvel at their ability to easily obtain replacement parts to keep those models in service.

For the fastest repair service and spare parts, we suggest you contact your local Penn dealer. You may also return you Penn Product for factory service to one of the Penn Warranty Centers. Outside of the U.S.A., please contact the Penn distributor in your country to return your Penn Product. Send it insured and include a short note describing the service you want. To avoid errors, make sure that your name and return address appear neatly and clearly on both your outside package and your note. Allow sufficient and reasonable time for Penn to receive and service your Product. Avoid our spring rush by sending your Penn Products in for service and repair during our fall or early winter.

Penn will notify you that your Product has been serviced, providing a reasonable charge for parts, labor and return postage, or you can request VISA or MasterCard payment. Provide card type, name on card, card number, expiration date and daytime telephone number when paying by credit card.

### **HOW TO ORDER PENN REEL PARTS**

1. By mail, please list model for which you are buying parts and order parts by name and number.
2. Include your legible, printed name, address and daytime telephone number (or fax number if outside U.S.A.) with your order.
3. Penn will then send you an invoice, showing part prices plus shipping and handling charges.
4. There is a minimum part order of \$2.00 and a shipping and handling charge of \$2.50 on a minimum order.
5. Upon receipt of your payment (check or money order only), your order will be shipped to you via parcel post, air parcel post or U.P.S.
6. For faster service, you may also use your MasterCard or VISA credit card to mail in parts orders. Specify MasterCard or VISA card, account number, and expiration date when ordering parts. Be sure to include information requested in Steps 1 & 2.
7. You may also use your MasterCard or VISA to place parts orders over the telephone. Call the Penn Parts Department at (215) 229-9415 between 8:30 and 4:30 pm U.S. East Coast time.
8. For fastest service, see your local Penn dealer. Check telephone directory for dealer nearest you.

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