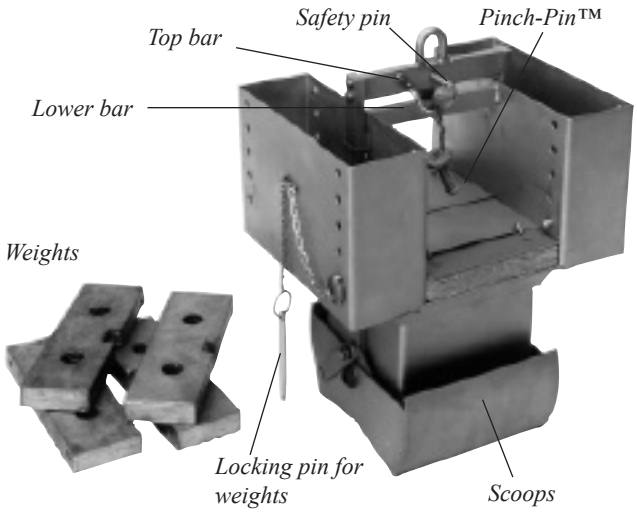
191-A12 Box Corer Instructions



Introduction:

The patented **Wildco®** box corer is designed to take larger samples in harder bottoms more easily and safely than spring-powered grabs. It is especially effective in finely divided muck, clays, mud, ooze, submerged marl or fine peaty materials.

The sole driving force is the box corer's weight, which can total 96 pounds. The body itself weights about 14 kg (31 pounds) which is augmented by up to twelve extra weights, each weighing 4 kg (8 lbs), securely fastened in two (2) side bins. The heavy duty linkage and scoops dig as deep as the weight will allow. The smooth interior allows an acrylic liner to easily slip in and out. *Ship weight: 70 pounds.*

We recommend one or two trial samples as a means of determining whether added weights are advisable to make certain that the dredge will bite deep enough into the bottom being sampled.

Operation Requires:

- 100' stainless steel cable (**61-B14** rec.)
- Winch and depth meter (**85-E10** recommended)

Accessories or Parts:

- **191-A91** extra weights pack of 4, 8# each
- **188-E50** Wash frame to sort sample
- **191-L12** Replacement screen, 500 micron
- **1728-L12** Replacement release pin
- **910-A26** Plywood carry case
- **191-B10** Acrylic liner

How To Operate:

1. **Inspect the dredge** before using to make sure it is in working order. Make sure it is securely attached to the cable on the winch/crane.
2. Carefully keeping clear of the jaws and other working edges of the dredge, **move the scoops to the open position.** To open the scoops, hold the corer by the lower bar and push down on the top bar until the holes in the two bars are aligned.
3. **Stack the included weights** in the side pockets on either side of the box corer, an equal number of weights on each side. To hold the weights in place, insert the locking pins through the hole on the side of the weight box and the actual weight. The large holes in the weights are used as fingergrips for handling the weights. [Additional weights are available from *Wildlife Supply®*.]
3. **Insert the safety pin at this time**. To do so, push the pin into the hole in the lower bar until it is through both bars, then hold into place.
4. When ready to sample, remove the safety pin and **insert the Pinch-Pin™**.
5. Pull up on the top bar to allow the weight

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4. When ready to sample, remove the safety pin and **insert the Pinch-Pin™**.
5. Pull up on the top bar to allow the weight of the corer to pinch the pin and hold it into place.
7. Use the winch/crane to lift the dredge clear of the boat deck and then outboard.
8. **Lower the dredge slowly** into the water. Top surfaces are covered with 500 micron mesh screen to reduce shock wave and drift, yet prevents sediments and organisms from escaping.
10. When the dredge reaches the bottom, allow a moment for it to sink into the sediments. **Keep tension on the cable** for penetration to occur.
11. **Slack off on the cabl**e to release the tension on the upper bar. This permits the Pinch-Pin™ to slide out, thus allowing the sampler to close.
12. Now **winch the cable** to exert a closing motion, transmitted mechanically through the bars and to the jaws of the dredge.
13. This mechanical action, plus the force exerted downward by the weights bolted to the jaws (plus any additional weights) tends to force the jaws **deeper into the bottom** as they are moving to close. The machine tapered cutting edges on the jaws add to the ease of movement through bottom materials.
14. **Maintain tension on the cable** by operating the winch. This completes the closing of the sampler and raises it back to the surface. This should be in a steady, slow lift.
15. When the dredge reaches the surface, **lift it clear and swing it inboard** to position over a tub placed to receive the sample, such as the 188-E50 washframe.
16. Taking care to stay clear of the edges of the jaws, **open the sampler and discharge the sample** into the tub. The liner allows easy removal of the sample. You can pull the liner out with the sample contained within. Samples should be screened, sieved, separated, bottled, labeled and otherwise processed for analysis and classification studies by the standard procedures outlined for the work in progress.
17. At the conclusion of sampling operations, **replace the "Safety Pin"** to prevent accidental closing of the jaws in handling or shipping. Then wash and inspect the grab and make necessary repairs or adjustments in preparation for the next use. The unit should be decontaiminated between each unique sampling location.

Maintenance:

Barring loss through accident or abuse, this dredge will give long years of trouble-free service. The 316 stainless steel construction resists corrosion.

1. **Wash the dredge** after each sample drop; at the close of the day's work, give the entire apparatus a thorough washing with fresh water. This is particularly essential after sampling in **salt water**. Do the same with all equipment - cable, crane, winch, boats etc.
2. **Inspect the cutting edges** after each sample drop. Severe nicks or dents may require re-working of these edges to assure a good cutting action and tight closure.
3. **Lubricate** pivot points occasionally. When the bottom dredge is to be out of service for a long time, we recommend applying a coating of oil or other rush barrier to protect the unit's metal surfaces. Coat all surfaces, joints, bolts and stud-bolt holes if these are to be left open.

Important Note:

Acrylic liners are available with the box corer. They help protect the sample from contamination picked up by the metal sample box.If you plan to use an acrylic liner with your box corer, you will need to follow the steps below:

1. Remove the locking pin from the corner of the sample box.
2. Gently insert the acrylic liner such that the holes on the liner align with the holes in the corner of the sample box.
3. Reinsert the locking pin. Make sure in penetrates all the way through.
4. Failing to do this may result in the loss of your liner.

P/N 031091

Warranty and Parts: We replace all defective or missing parts free of charge. Additional replacement parts may be ordered toll-free. We accept MasterCard, Visa, checks and School P.O.s. All products warranted to be free from defect for 90 days. Does not apply to accident, misuse or normal wear and tear. Intended for children 13 years of age and up. This item is not a toy. It may contain small parts that can be choking hazards. Adult supervision is required.