

# AC SEAKEEPER MOTOR DRIVE CABLE REPLACEMENT



PRODUCT ALL AC-POWERED SEAKEEPER-SERIES MODELS

## PURPOSE

To replace only the AC Input cable to an AC-powered Seakeeper motor drive. If replacing the motor drive box, use SWI-094, Seakeeper AC Motor Drive Replacement instructions.

## OVERVIEW

The following instructions must be observed if the installer is replacing only the Seakeeper supplied Motor Drive Box cables for any AC Seakeeper model to ensure the integrity of the Seakeeper Motor Drive Box. The replacement cable must be the same or equivalent to the Seakeeper supplied cable:

- Pacer Marine, W10/3G. Flat Cable, Marine, 3x10 AWG, UL 1426, tinned copper strands: Black, White, and Green for Seakeepers equipped with flat AC input cables, **OR**  
  
Pacer marine, WR 10/5G. Round Cable, Marine, 3x10AWG, UL 1426, Tinned copper stranded, BLK, WHT, GRN for Seakeepers equipped with round AC input cables.
- The use of ferrules should be the same or equivalent to Phoenix 3200548, Ferrule, Insulated, 12 AWG, 0.47 in. pin length.
- The Terminal Stud (for the green conductor) should be the same or equivalent to Fastenal 58547, Ring Terminal, 12-10 GA, Size #8, Insulated.

A preferred alternative to replacing the Seakeeper installed cable is to splice the supplied cable, or a junction box can be used to extend the cable length to the desired termination location. The AC Input cable length cannot exceed 9.8 ft (3 m) in length due to inductance concerns. This method is preferred to ensure the integrity of the Motor Drive Box is not compromised.

## TOOLS

- Insulated terminal crimpers, standard
- Greenlee K-30 Square Crimper (Insulated Single Ferrules/Non-Insulated Single Ferrules, Square Crimp, Die) or equivalent.
- #2 Phillips screwdriver
- Torque screwdriver (19 in-lbs / 2.2 Nm) with #2 Phillips
- Permanent marker
- Cutter for cable ties



## REFERENCES


- SWI-094 – Seakeeper AC Motor Drive Box Replacement

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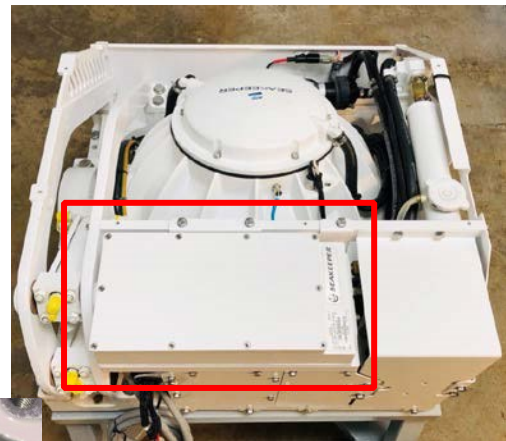
## PROCEDURE



**DANGER!**

**PERSONNEL SHOCK HAZARD EXISTS within  
Motor drive if power applied to MDB OR flywheel is rotating.**

1. **TURN OFF / OPEN** all Seakeeper circuit breakers to isolate Seakeeper from all power.
2. **LOCATE** motor drive box of Seakeeper.
3. **REMOVE** cover by removing ten (10) Phillips head M4 screws.
4. **PLACE** cover and screws aside.
5. **LOCATE** AC input power connection.



6. **DISCONNECT** hot and neutral conductors by lifting orange lock tabs.
7. **UNSCREW** Phillips ground (GN) wire conductor.
8. **CUT** cable ties securing cable to motor drive.



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- 9. **REMOVE** cable gland for AC input cable.
- 10. **PULL** Seakeeper-supplied AC input cable from motor drive.
- 11. **PLACE** motor drive gland nut over replacement AC input cable.
- 12. **ROUTE** sufficient length of replacement AC input cable into motor drive.
- 13. **SECURE** gland nut over replacement AC input cable.
- 14. **ENSURE** cable gland completely secure and no void between cable and gland exists to maintain ingress protection.
- 15. **SEPARATE AND STRIP** ½ in. (13 mm) of insulation from end of each of three conductors.



- 16. **SLIDE** ferrules onto hot and neutral bare wire ends **AND ENSURE** all strands inside metal ferrules.
- 17. **OPEN** crimp tool **AND SLIDE** ferrule into tool opening.
- 18. **SQUEEZE** crimp tool until fully closed.
- 19. **REPEAT** crimping step for opposite conductor, either positive or negative.



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20. **INSTALL** #8 terminal stud onto ground (GN) wire **AND ENSURE** all strands are inside metal sleeve.
21. **CRIMP** terminal stud onto ground (GN) wire.
22. **PERFORM** pull test to confirm terminal stud and ferrules are secure on each conductor.
23. **INSERT** neutral and hot conductors into appropriate motor drive terminal connector.
24. **PRESS** down on orange tabs to lock positive and negative conductors.
25. **SECURE** ground conductor to ground stud using Phillips head screw.
26. **REPLACE** cable ties cut during removal.
27. **INSTALL** motor drive cover with ten (10) M4 Phillips head screws finger tight.
28. **TORQUE** motor drive cover screws to **19 in-lbs (2.2 Nm)**.
29. With permanent marker, **PLACE** witness marks on each cover screw.



\*\*\*\*\* **END** \*\*\*\*\*

REVISION	DESCRIPTION	APPROVAL	DATE
1	Initial release	D Froriep	06AUG2020
2	Flat AC input cable introduction. Reformatted procedure. Minor edits.	A Patricio	20SEP2023