CHAPTER 11

COMBINATION MINESWEEPING

LEARNING OBJECTIVES

Upon completing this chapter, you should be able to do the following:

1. Describe the purpose of combination minesweeping.
2. Recall the three groups of combination sweeps.
3. Recall the different configurations of combination minesweeping.

INTRODUCTION

In previous chapters, we discussed minesweeping sweeps used to clear acoustic and magnetic influence mines. A third type of influence mine, which we did not discuss, is the pressure mine. Some mines are designed to be set off by a combination of these types of influence (magnetic-acoustic, pressure-acoustic, and magnetic-pressure). Therefore, a sweep was developed to counter all of these types (except pressure influence) in the same pass. At present, there is no minesweeping device that can simulate a ship's pressure signature.

This chapter illustrates numerous combination sweeps that are available. Combination minesweeping is used to detonate influence mines or cause their detecting devices to register a ship count as the sweep passes near them. The most effective combination sweeping is achieved when two types of gear are streamed from the same ship, superimposing the influence fields.

TYPES OF COMBINATION SWEEPS

Combination sweeps are subdivided into three groups: FA2, FA2A, andcombinationmagnetic sweeps as follows:

Group 1: FA2 combination sweep consists of the M Mk 6(a) open-loop magnetic sweep with either a TB-26 or TB-27 acoustic device.

Group 2: FA2A combination sweep consists of the M Mk 6(b) closed-loop magnetic sweep with either a TB-26 or TB-27 acoustic device.

Group 3: Combination magnetic sweeps consists of the M Mk 5(a), M Mk 6(a), or M Mk 6(h) with an acoustic device towed astern.

The various combination sweeps and their associated equipment are listed in table 11-1 and illustrated in figures 11-1 through 11-10.

Table 11-1.—Combination Sweeps

Type	Equipment	Figure
FA2	M Mk 6(a) open diverted loop magnetic sweep with a TB-26 acoustic device	11-1
FA2	M Mk 6(a) open diverted loop magnetic sweep with a TB-27 acoustic device	11-2
FA 2A	M Mk 6(h) closed diverted loop magnetic sweep with a TB-26 acoustic device	11-3
FA 2A	M Mk 6(h) closed diverted loop magnetic sweep with a TB-27 acoustic &vice	11-4
Combination Magnetic	M Mk 5(a) sweep with a TB-26 acoustic device	11-5
Combination Magnetic	M Mk 5(a) sweep with a TB-27 acoustic device	11-6
Combination Magnetic	M Mk 6(a) sweep with a TB-26 acoustic device	11-7
Combination Magnetic	M Mk 6(a) sweep with a TB-27 acoustic device	11-8
Combination Magnetic	M Mk 6(h) sweep with a TB-26 acoustic device	11-9
Combination Magnetic	M Mk 6(h) sweep with a TB-27 acoustic device	11-10

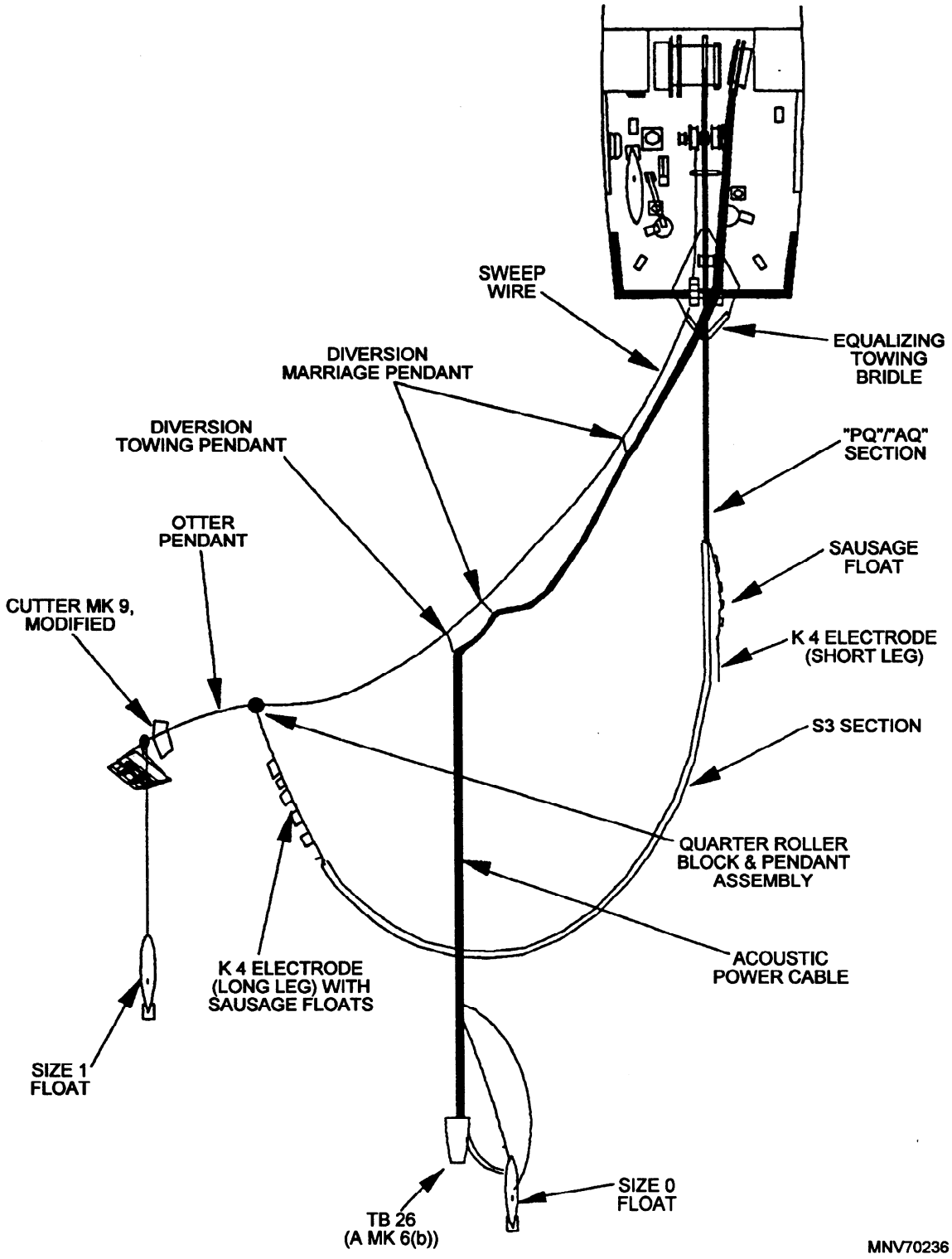

Figure 11-1.—FA 2 combination sweep configuration M Mk 6(a) with TB-26(A Mk 6(b)).

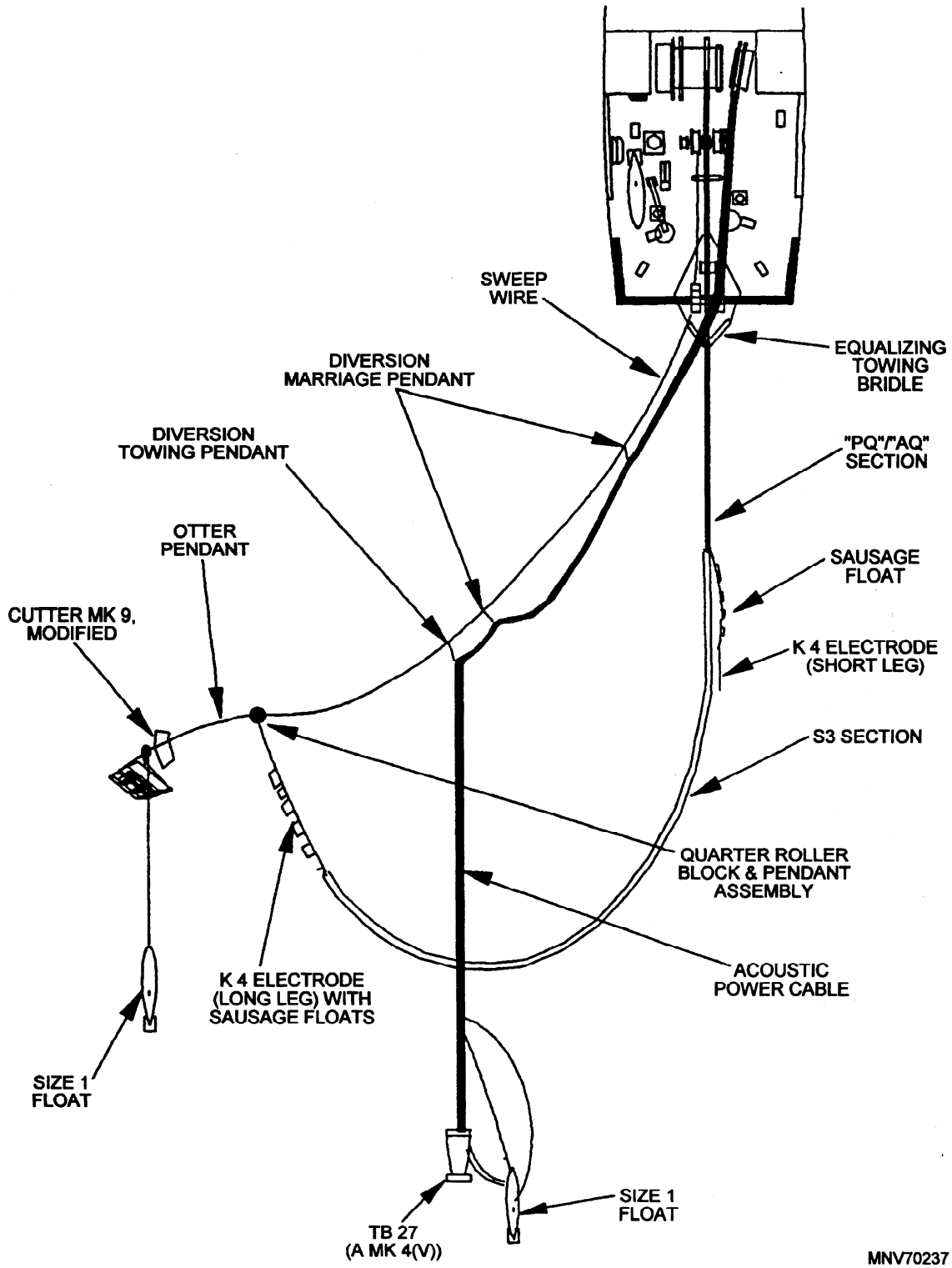

Figure 11-2.—FA 2 sweep configuration M Mk 6(a) with TB-27(A Mk 4(v)).

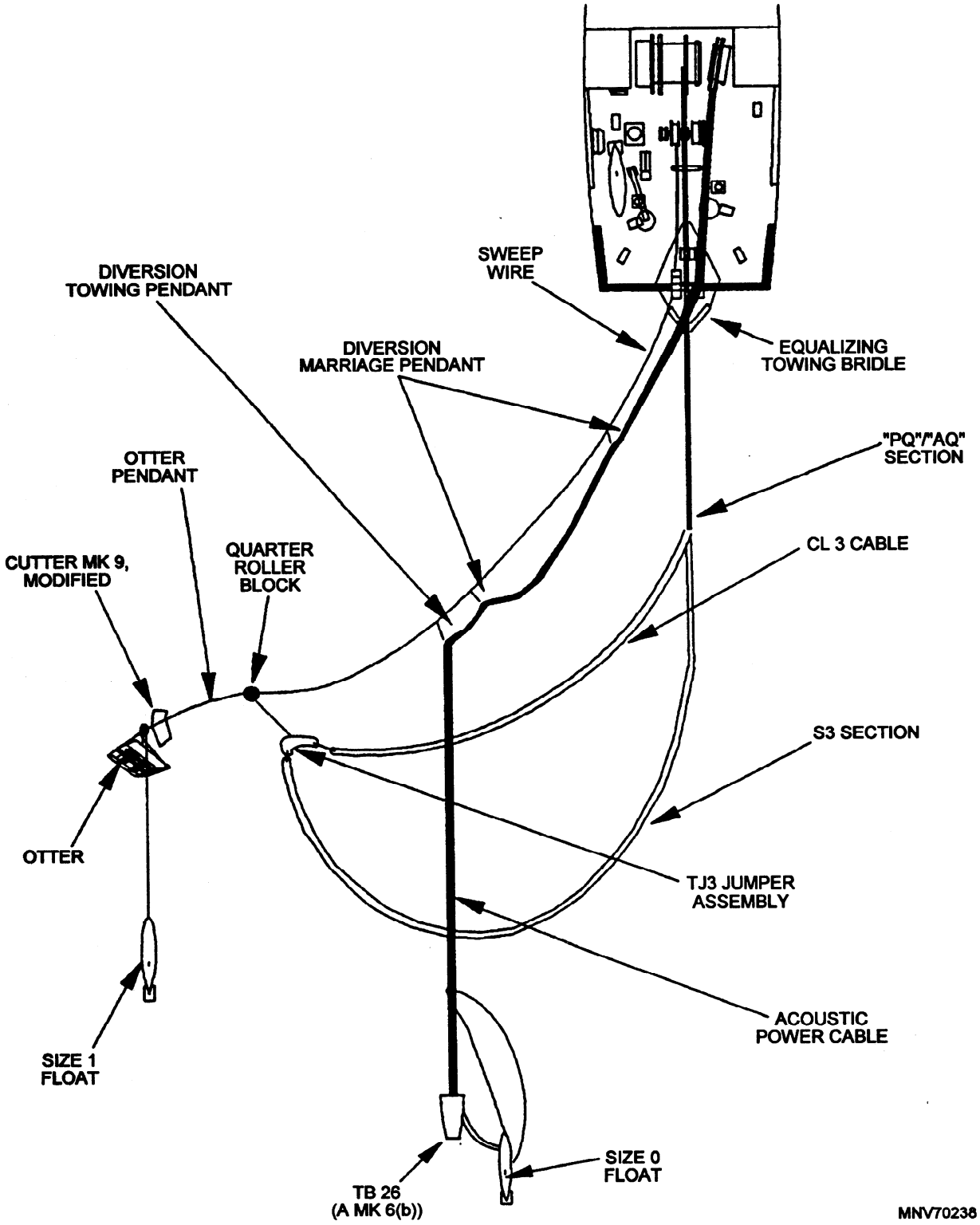

Figure 11-3.—FA 2A sweep configuration M Mk 6(h) with TB-26(A Mk 6(b)).

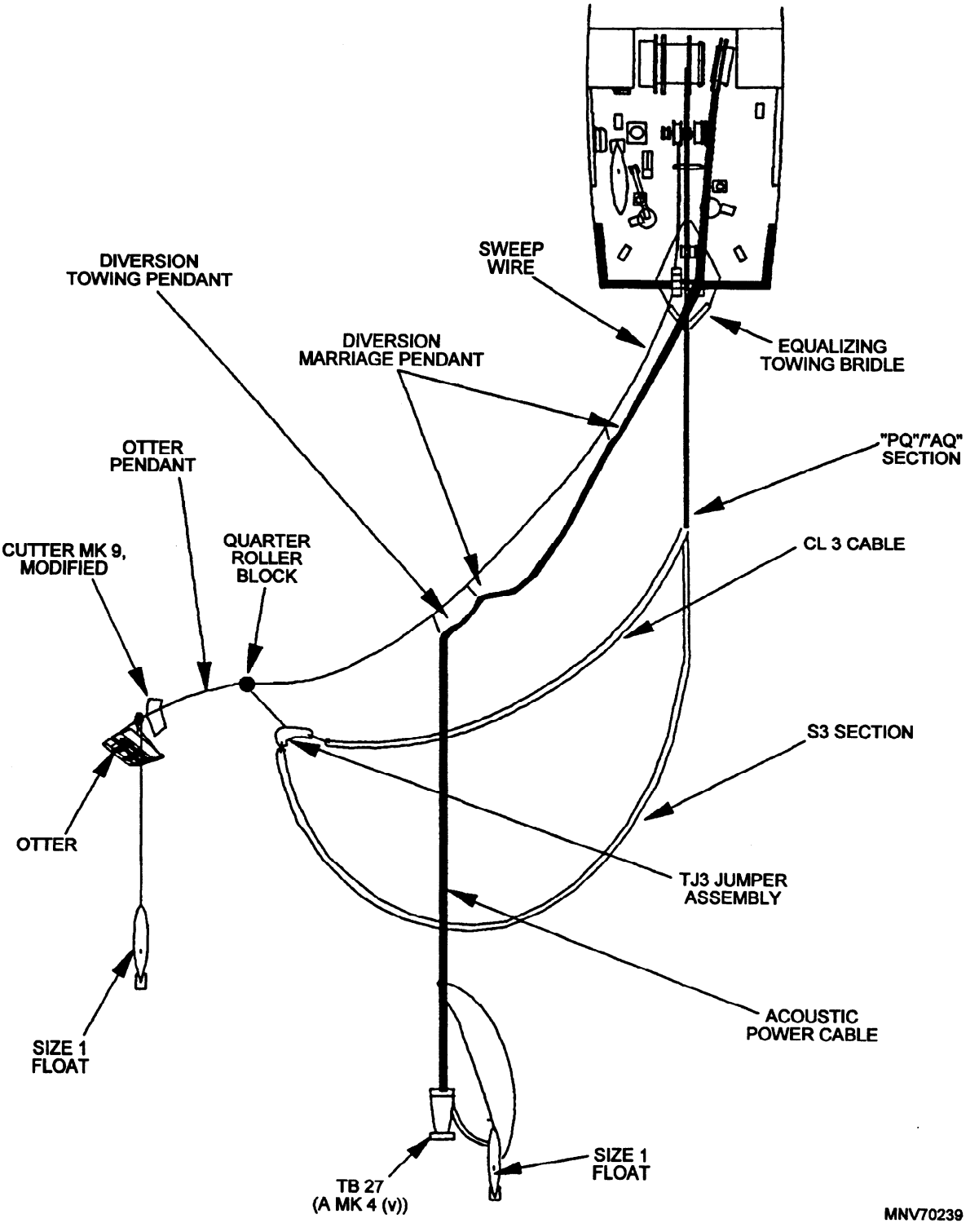

Figure 11-4.—FA 2A sweep configuration M Mk 6(h) with TB-27(A Mk 4(v)).

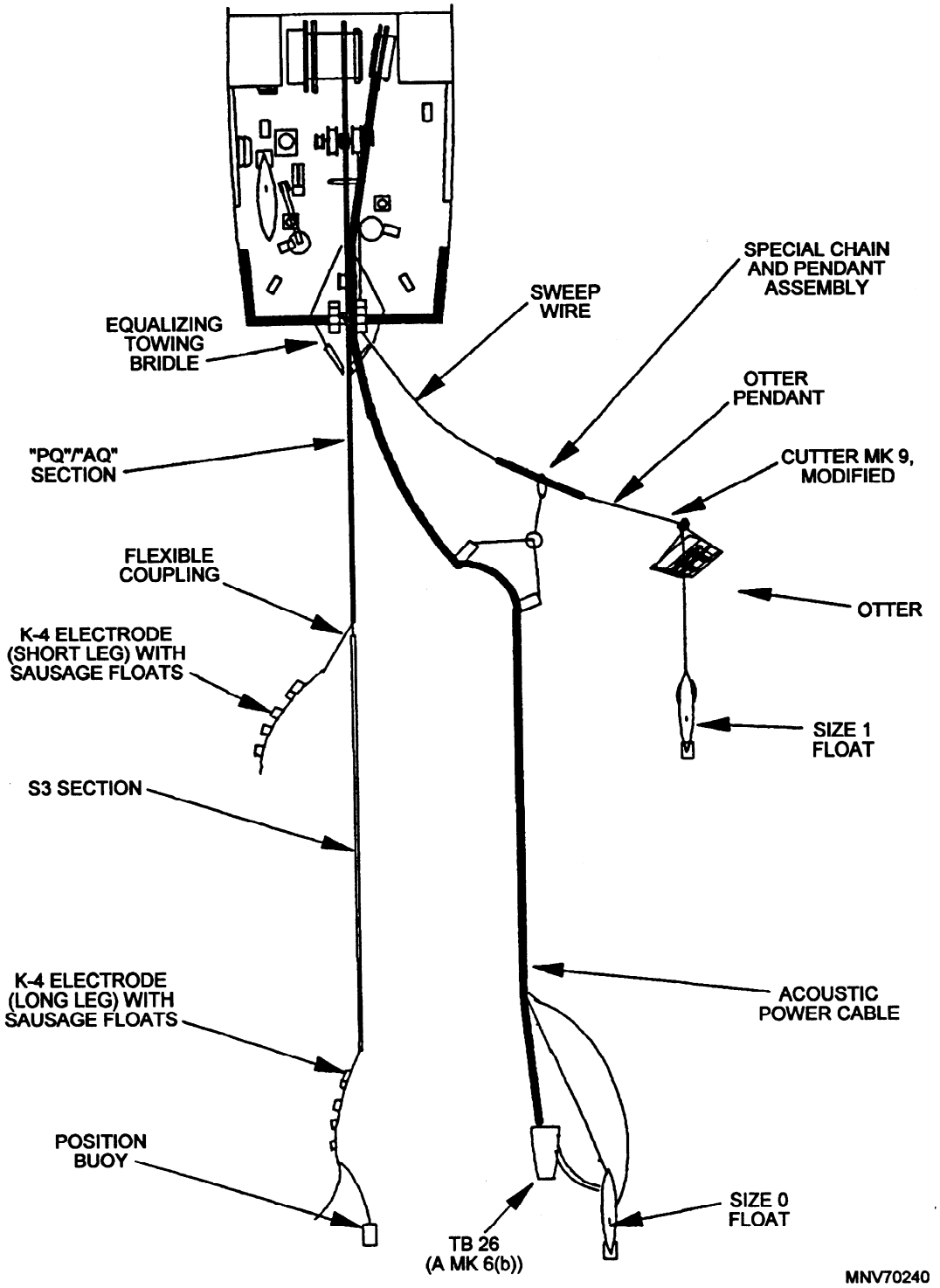

Figure 11-5.—M Mk 5(a) sweep configuration with TB-26(A Mk 6(b) diverted to starboard.

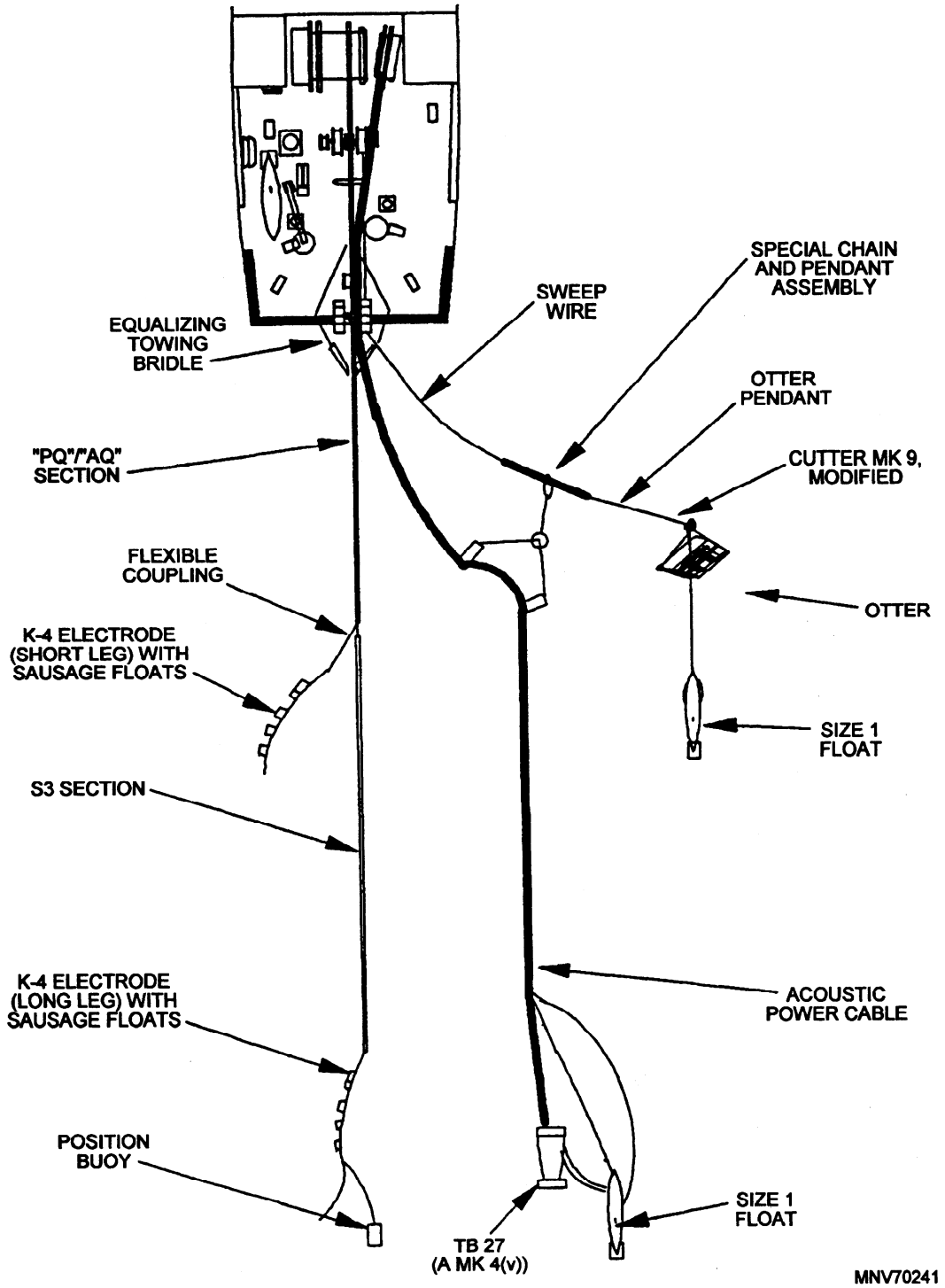

Figure 11-6.—M Mk 5(a) sweep configuration with TB-27(A Mk 4(v) diverted to starboard.

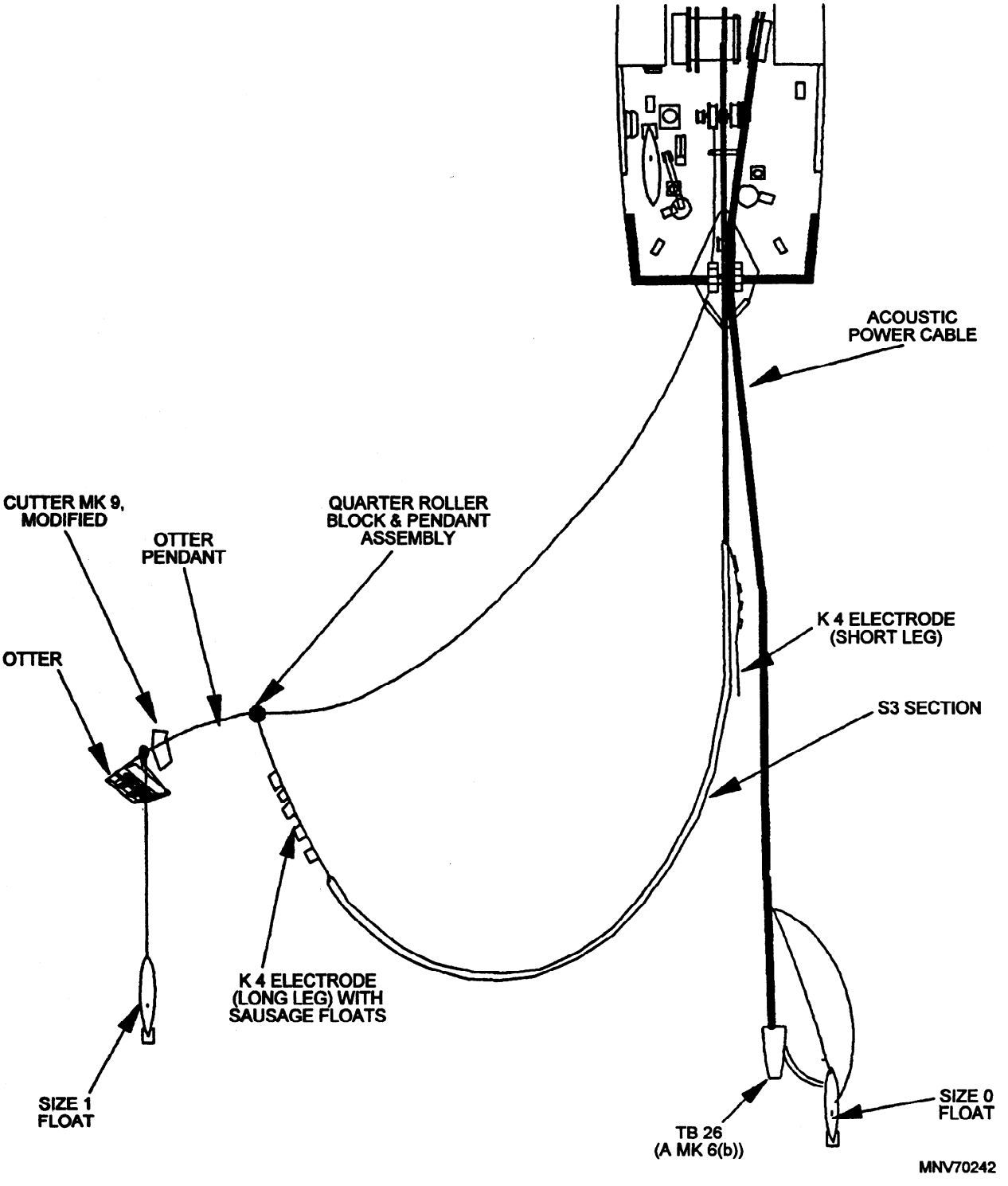

Figure 11-7.—M Mk 6(a) sweep confIguration with TB-26(A Mk 6(b) astern.

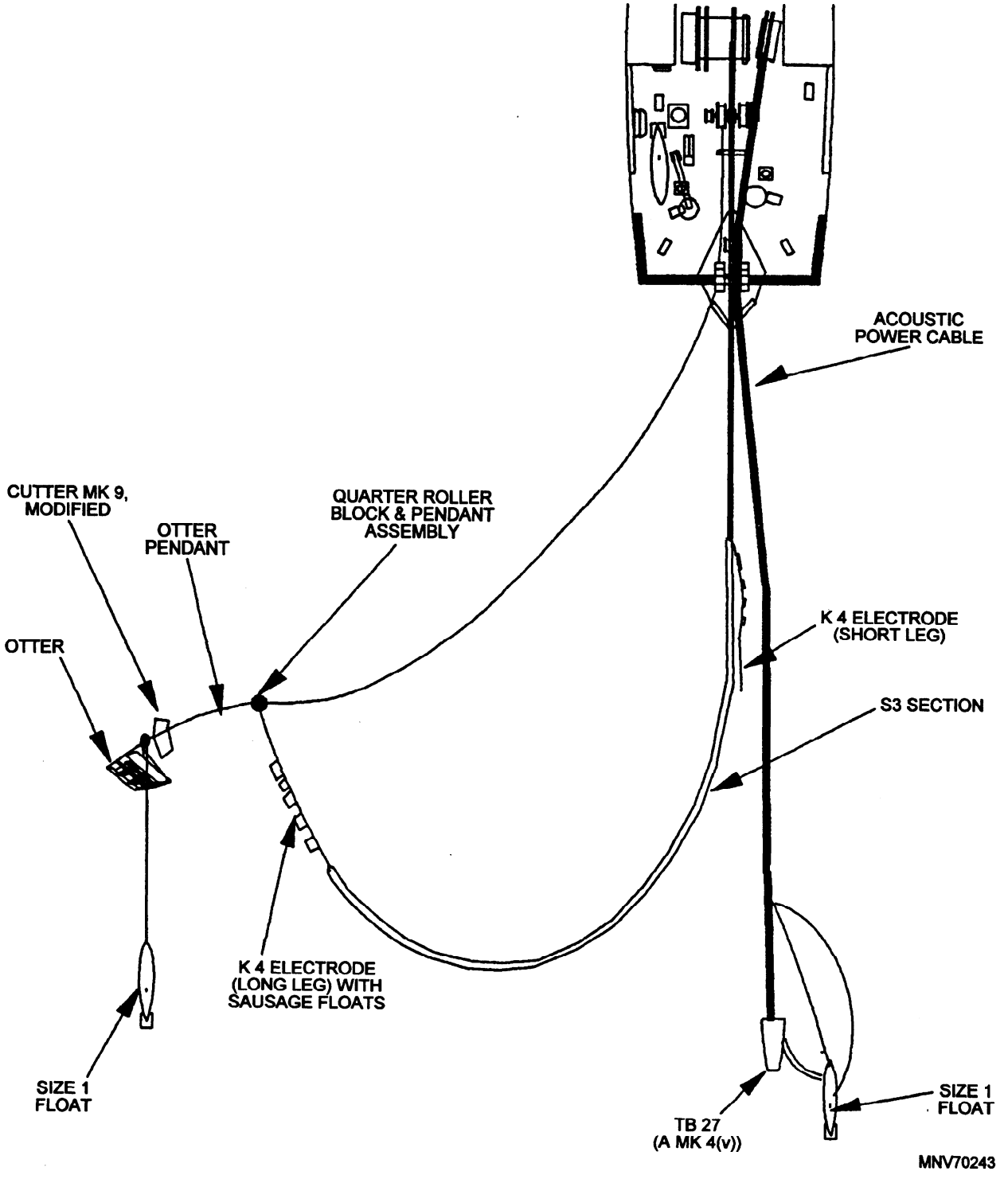

Figure 11-8.—M Mk 6(a) sweep configuration with TB-27(A Mk 4(v) astern.

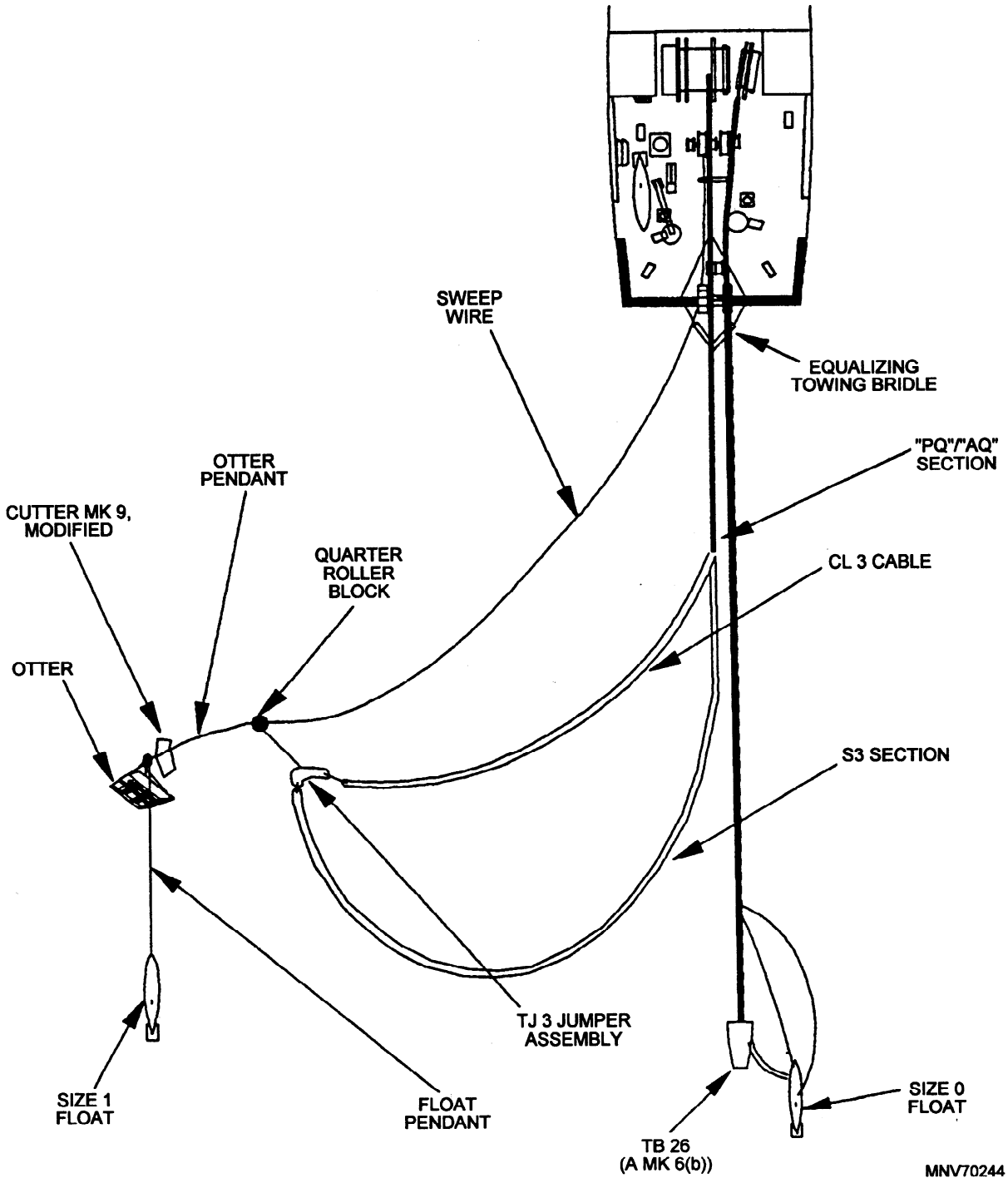

Figure 11-9.—M Mk 6(h) sweep configuration with TB-26(A Mk 6(b) astern.

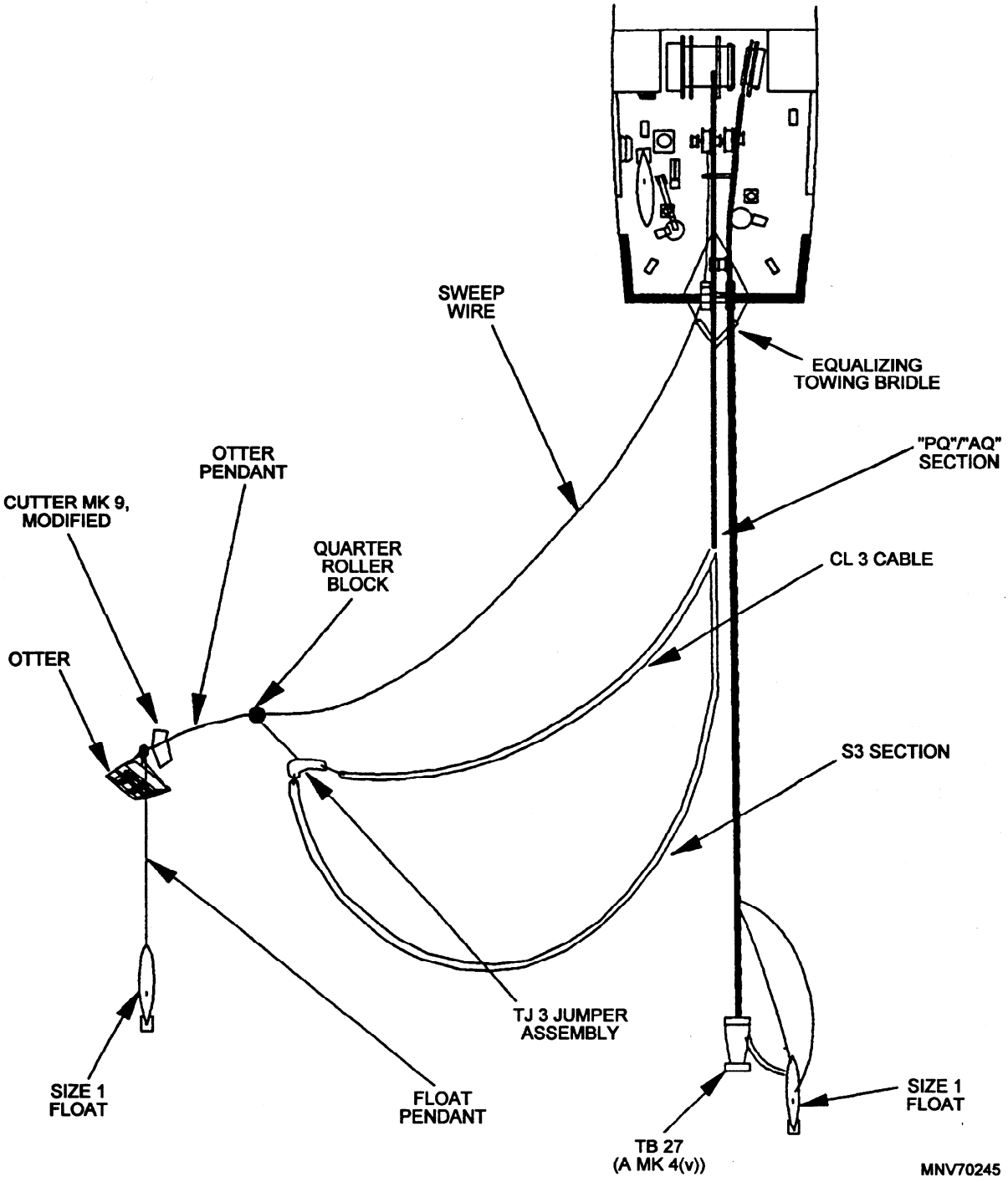

Figure 11-10.—M Mk 6(h) sweep configuration with TB-27(A Mk 4(v) astern.