

Amortization of Bond Discount: Effective Interest Method

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The amortization of bond discount is best achieved through the effective interest method. (If the amount of bond discount is not significant, the simpler straight-line method of amortization is acceptable. See **Form D6**.) With either method of amortization, a bond's book value is always moving toward the bond's face or maturity amount. The reason is that the balance in the account Bond Discount is being reduced to zero over the life of the bond.

The advantage of the effective interest method is that the amount of each accounting period's interest expense is directly related to the bond's book value at the start of each accounting period.

Our form assumes that the bond's interest expense and amortization of the bond's discount will be recorded on the dates of the interest payments.

The example below assumes that a bond with a stated interest rate of 9% and a face value of \$100,000 is issued on January 1, 2023. The bond pays interest on each June 30 and December 31 and matures in 5 years. The market interest rate at the time of issuance was 10%, which resulted in the bond selling for \$96,139.13 on its issue date.

A	B	C	D	E	F	G
Date	Interest Payment	Interest Expense	Amortization of Discount	Balance in Bond Discount	Balance in Bonds Payable	Book Value of Bonds
<u>Amounts at Issue Date:</u>						
Jan 1, 2023				\$ 3,860.87	\$ 100,000.00	\$ 96,139.13
<u>Amounts at Semiannual Interest Dates:</u>						
Jun 30, 2023	\$ 4,500.00	\$ 4,806.96	\$ 306.96	\$ 3,553.91	\$ 100,000.00	\$ 96,446.09
Dec 31, 2023	4,500.00	4,822.30	322.30	3,231.61	100,000.00	96,768.39
Jun 30, 2024	4,500.00	4,838.42	338.42	2,893.19	100,000.00	97,106.81
Dec 31, 2024	4,500.00	4,855.34	355.34	2,537.85	100,000.00	97,462.15
Jun 30, 2025	4,500.00	4,873.11	373.11	2,164.74	100,000.00	97,835.26
Dec 31, 2025	4,500.00	4,891.76	391.76	1,772.98	100,000.00	98,227.02
Jun 30, 2026	4,500.00	4,911.35	411.35	1,361.63	100,000.00	98,638.37
Dec 31, 2026	4,500.00	4,931.92	431.92	929.71	100,000.00	99,070.29
Jun 30, 2027	4,500.00	4,953.51	453.51	476.20	100,000.00	99,523.80
Dec 31, 2027	4,500.00	4,976.20	476.20	-	100,000.00	100,000.00
Totals	\$ 45,000.00	\$ 48,860.87	\$ 3,860.87			

Calculation of Amounts at Semiannual Interest Dates:

	Bond's stated interest rate x face amount x 1/2 year	Effective/market interest rate x book value of bonds at the beginning of the period x 1/2 year	Column C minus Column B	Previous debit balance in Bond Discount in Column E minus the credit amount in Column D	The credit balance in Column F minus the debit balance in Column E.
Jun 30, 2023	9%x100000x1/2	10%x96139.13x1/2	4806.96-4500.00	3860.87-306.96	100000.00-3553.91
Dec 31, 2023	9%x100000x1/2	10%x96446.09x1/2	4822.30-4500.00	3553.91-322.30	100000.00-3231.61
Jun 30, 2024	9%x100000x1/2	10%x96768.39x1/2	4838.42-4500.00	3231.61-338.42	100000.00-2893.19

Journal entry at June 30, 2023:

Interest expense	4,806.96
Bond Discount	306.96
Cash	4,500.00

For a blank form see **Form D5**.

Learn more about bonds payable at www.AccountingCoach.com.