A moving lemma for cycles with very ample modulus

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Abstract. We prove a moving lemma for higher Chow groups with modulus, in the sense of Binda-Kerz-Saito, of projective schemes, when the modulus is given by a very ample divisor. This provides one of the first cases of moving lemmas for cycles with modulus, not covered by the additive higher Chow groups. We apply this to prove a contravariant functoriality of higher Chow groups with modulus. We use our moving techniques to show that the higher Chow groups of a line bundle over a scheme, with the 0-section as the modulus, vanish.