1001-94-60 **Vassil Yorgov*** (`vyorgov@uncfsu.edu`), Department of Mathematics & Computer Science, Fayetteville State University, 1200 Murchison Rd, Fayetteville, NC 28301. *On the Order of the Automorphism Group of a Putative Extremal Code Vassil Yorgov.* Preliminary report.

A long standing open question is whether a doubly-even self-dual [72, 36, 16] code exists. It is known that if such code exists its automorphism group order is divisible only by the primes 7, 5, 3, and 2. It was shown recently that the order of the group is of the form $2^s 3^t 5^u 7^v$ where s and t are nonnegative integer and each of u and v is either zero or one. We obtain further restrictions on the automorphisms of such code. As a result we present a small list of possible group orders. (Received July 31, 2004)