```
PassReducible@k MD := PassReducible@k =
Block[{1, n = Length@k, p = List@@Build@k
     // (#<sup>T</sup> U (Abs@Reverse@#
               Sign /@ List @@ Build [MD @@ (-List @@
                       k)])^{\dagger}[2] &, v = True,
 Do[If[(Sign@p[Mod[i+j(Range@o-1),
            (*There is a (o, o-1)-pass.*)
    If[o == 3, Goto@1];
    Do[If[Total@Mod[e, 2] = 2,
      If[(Mod[e, 2n, e[1]])
                // Partition[#, 2] &
               // Range @@@ # &) [[ ;; , 2 ;; -2]]
           // Mod[#, 2n, 1] &
          // Union @@ # &
         // # == Abs@p[[#]] \cup \{\} &, Goto@1],
     {e, Select[Table[SortBy[{c, i}]]Abs@
                p[Mod[{i, i+j}, 2n, 1]],
              Mod[#, 2n, i] &], {c, 2n}],
           Length@# == 4 \& 1^T
         If[j = 1, \{2, 3, 4, 1\}, ;;]]<sup>T</sup>}],
   {o, {3, 2}}, {i, 2n}, {j, {1, -1}}];
 v = False;
 Label@1;
 v];
```