```
TwoPass@k_MDT :=
  TwoPass@k = Block[{a, c, n = Length@k,
      p = List @@ Build@k //
         (#ᵀ ⋃ (Abs@Reverse@# Sign@#)ᵀ)ᵀ〚2〛 &,
      v, y = {}},
    Do[v = Abs@p〚Mod[{i, i + 1}, 2 n, 1]〛;
     If[Sort@
         Sign@p〚Mod[{i, i + 1}, 2 n, 1]〛 == {-1, 1},
      Do[If[Total@Mod[l, 2] == 2,
         c = Range @@@
           Partition[l + {1, -1, 1, -1}, 2];
         If[¬ MemberQ[Join @@ c, i],
          l = RotateLeft@l;
          c = Mod[Range @@@ Partition[
              l + {1, -1, 1, 2 n - 1}, 2], 2 n, 1]];
         If[Length[Join @@ c] < 2 n - 4
           ⋀ v ⋃ Join @@ c == Abs@p〚Join @@ c〛 ⋃
             Mod[{i, i + 1}, 2 n, 1],
          (*A 2-pass can be made with
            the given settings.*)
          AppendTo[y, Convert[
            Build@k /. x_Integer :>
              PassMapping[v, l, p, c,
               n, Abs@x, i]]]]],
        {l, Sort@Join[#, v] & /@
          Subsets[Delete[Range[2 n],
            Mod[{{i, i + 1}}ᵀ, 2 n, 1]], {2}]}]],
     {i, 2 n}];
    KnotSort[Minimal /@ y ⋃ {}]];
```