## 7.4 LISTING OF ALIGN.MAC

If you have the assembly language utilities M-80 and L-80, this diagnostic can be typed into the KAYPRO, then turned into a COM file by running M-80, then L-80.

```
     ************************************************************************

; kaypro alignment test routine
;
; first a program to move this routine above 8000h
; so we can turn on the other page of memory
; and address the video page directly
;
start:
        ld      hl,first+1
        ld      de,dest
        ld      bc,last-first1
        ldir
        jp      dest
;
dest    equ     08000h
first:  defb    0
;
        .phase dest
;
;beginning of the program
; first turn off the drives and turn on the vid page
;
first1:
        in      a,(01ch)
        set     7,a     ;turn on the vid page
        set     6,a     ;turn off drives
        res     0,a     ;turn off drive a light
        res     1,a     ;turn off drive b light
        out     (01ch),a
;
        ld      hl,3000h        ;beginning of the vid page
        ld      (hl),'H'
        ld      de,3000h+1
        ld      bc,3*1024               ;how many
        ldir
;
;       now vid page filled with H
;
        ld      hl,msg1
        ld      de,03580h       ;line 12
        ld      bc,80
        ldir
;
        ld      hl,msg2
        ld      de,03600h       ;line 13
        ld      bc,80
        ldir
```