

8 = +5 @8 =GD@ M: CF`H<9`?K!&\$\$\$6`HF5BG79=J9F

5B`I`D85H9: CF`5: =B9`C@8`F =, `D9H9F`>""7CC?ž; (B75

=B`h`Y`ZUV`cZYj`Yf!`]bWYUg]b[`hfUbgW]j`Yf`df]Wgž`h`Y`dfcgdYW`icZi`d[`fUX]b[`c`XYf`Yei`]da`Ybh`VYW`a`Yg`
]bWYUg]b[`m`U`h`f`U`W]j`Y""5`dcdi`Uf`Yi`Ua`d`Y`cZ`gi`W`U`d]YW`cZ`Yei`]da`Ybh`]g`h`Y`?K`!&\$\$\$6ž`cZYf]b[`]!`VUbX`
W`j`YfU[`Yž`GG6#7K`ž`k`]h`U`b`]bdi`hidck`Yf`cZ`%`\$`k`U`h`g`d`"Y"d`ž`i`gi`U`m`Uj`U]`UV`Y`Uh`U`Z`U`W]cb`cZ`h`Y`df]W`cZ`
]hg`df`Yg`Ybh`XUm`W`i`bhYfdUfhg"5`W`a`dUfUhj`Y`mg]a`d`Y`hfUbgW]j`Yf`gi`W`U`g`h`Y`f&\$\$\$6`Y`b`Xg`]hg`Y`Z`h`
a`cX]Z]W]h]cb`fZcf`Yi`Ua`d`Yž`gY`"A`cX]Z]b[`h`Y`?K`!&\$\$\$5`HfUbgW]j`Yf`Zcf`h`Y`%\$`A`<n`ž`G`cf`h`K`Uj`Y`
A`U[`Un]bYž`A`Um`%-`&ł"

CbY`ZYUH`fY`h`Y`Ui`h`cf`U`g`Zci`bX`j`Yfm`Ubbcm]b[`k`]h`h`Y`f][`]g`h`Y`]bUWV`fUW`icZ`h`Y`UbU`c[`i`Y`X]Už`]h`
VY]b[`]j`Yfm`X]ZZ]W`h`hc`bYh`dfYV]gY`micb`UbmigdYVZ]WZ]Yei`YbWm`H`Y`UXX]h]cb`cZ`U`X][`]hU`fYUXci`h`k`ci`X`
YbUV`Y`Ub`UWV`fUH`W`X`Y`W`cb`Z]Yei`YbWm`f`UbX`U`gc`g`ck`i`gh`ck`a`i`W`h`Y`J: C`Xf]Zhg`Xi`f]b[`
cdYfU]h]cb`""""Lž`U`ck`]b[`]j`Yfm`UWV`fUH`b`Y`h]b["

5`ghi`Xnž`cZ`h`Y`j`Uf]ci`g`a`]l`]b[`]dfcWV`ggYg`WVff]YX`ci`h]b`h`Y`?K`fYj`YU`g`h`Uh`h`Y`J: C`h`i`bYg`Z`ca`"&")!&"+`
A`<nž`dfcXi`V]b[`]U`&\$\$`_<n`U`c`W]h]cb`Zcf`YUW`a`UghYf`cgV`U`hcf`W`mg]U""H`Y`ci`hdi`h`Z`ca`h`Y`J: C`]g`a`]l`YX`
k`]h`(`)`_<n`GG6`hc`dfcXi`W`U`j`Uf]UV`Y`= `cZ`&"-))!`"%`)"A`<n`H`l`g`g][`bU`]g`gi`V`h`U`W]j`Y`ma`]l`YX`k`]h`U`
W`mg]U`a`UghYf`cgV`U`hcf`hc`dfcXi`W`F:]b`h`Y`Uddfcdf]U`h`Ua`U`h`i`f`V`UbX""5`W`bg`Yei`YbW`cZ`h`g`a`]l`]b[`
dfcWV`gg`]g`h`Uh`Ug`h`Y`hfUbgW]j`Yf`]g`h`b]b[`]hc`U`][`Yf`Z]Yei`YbWm`ž`h`Y`J: C`Z]Yei`YbWm`]g`]b`ZUV`h`XYWV`YUg]b[`
<YbW`U`bmiX][`]hU`fYUXci`h`a`i`gh`fYUX`f&\$\$`_<nfik`Yb`h`Y`J: C`]g`Uh`&)"A`<nž`ZU`]b[`]hc`f\$`_<nfik`Yb`U`
Z]Yei`YbW`icZ`&"+`A`<n`]g`U`h`U]b`YX"

CdYfU]h]cb

H`Y`V`Ug]WcdYfU]h]cb`cZ`h`Y`X]gd`Um]g`dfcVUV`m`VYgh`XYgW]VYX`k`]h`h`Y`U]X`cZ:][`""ž`U`g]a`d`]Z]YX`V`cW`
X]U[`fUa`""5`W`cW`di`gYg`UfY`XYf]j`YX`Z`ca`U`&"+`A`<n`W`mg]U`cgV`U`hcf`Z`Udd`]YX`hc`]bdi`h`5ž`h`Y`g]bYk`Uj`Y`
ci`hdi`h`Z`ca`h`Y`J: C`VY]b[`]gei`UfYX`cZ`UbX`Udd`]YX`hc`]bdi`h`6""H`Y`gY`h`c`g][`bU`g`d`Ugg`hc`h`Y`W`cW`UbX`

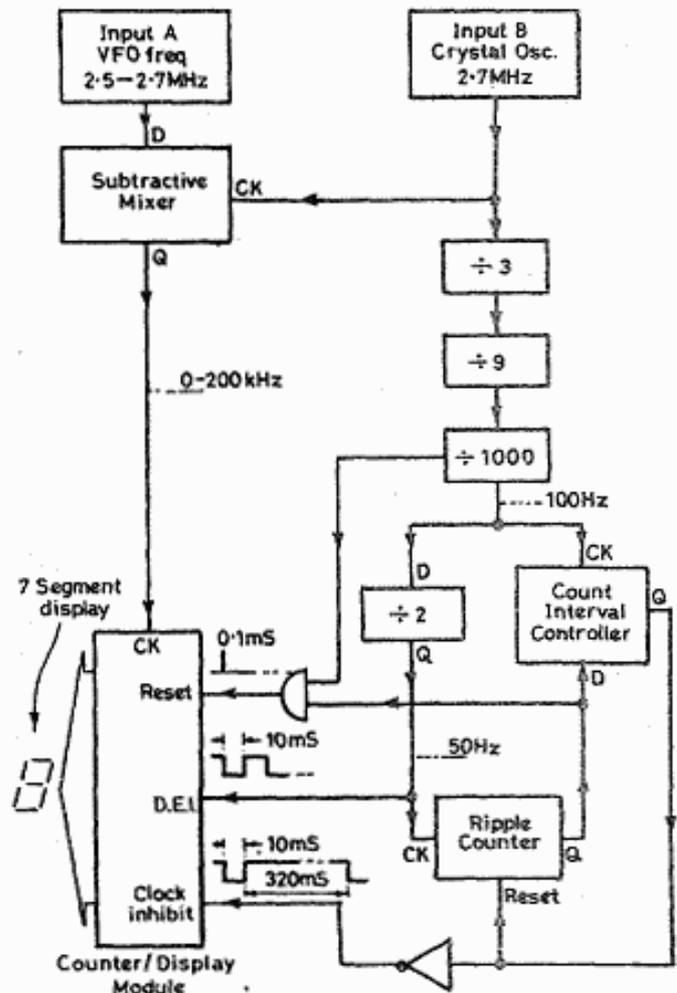


Fig.1 SIMPLIFIED BLOCK DIAGRAM OF THE KW-2000B DIGITAL DISPLAY

XUHU]bdi hgž fYgdYVWj Y nž cZ U 8! hmdY V]ghUV Yž Zcfa]b[U X] []hU' gi VhfUWj Y'a]l Yf' K \Yb hY J: C]g' hi bYX' hc' &") 'A <nž U ZFYEi YbWmicZ &\$\$' <n']g' dfcXi W'X' Uh hY' E' ci hdi hž ZU']b['hc' \$' <n' Ug' hY' J: C ZFYEi YbWmf]gYg' hc' &"+ 'A <nž]b' UWVfXUbW' k]h' hY' fYEi]fYa Ybh']' i ghfUHYX']b' hY' dfYj]ci g' dUfU' fUd\ "5XX]h]cbU' mž hY' &"+ 'A <n' g] [bU' i bXYf' cYg' U' X]j]g]cb' cZ &+ž\$\$\$' hc' [YbYfUHY' %\$\$\$' <n' WcW' Zc' f' h]a]b['di fdcgYg' "5 Ž f hYf' X]j]g]cb' Vm&']g']a d' Ya YbhYX' hc' [YbYfUHY') \$' <n' di 'gYgž VčbbYVWYX' hc' hY' X]gd' UmYbUVY']bdi h' fB 9± cZ hY' Vči bhYf#X]gd' Uma cXi 'Y' "K \YbYj Yf' h']g']bdi h' [cYg' \] [\ž' hY' XUHU' ghcfYX']b' hY' Vči bhYfg']g' Udd' YX' hc' hY' (!X] []hž +! gY [a Ybhž X]gd' Um' \YbW']b' h']g' Udd']W]h]cb' hY' X]gd' Umk]' VY' cb' Zc' f' Ca Gž Zc' ck YX' VmU' Ca G' cZž' cf' V' Ub_]b['dYf' cX' " =h']g' Xi f]b['h']g' dYf' cX' h' Uh' Vči bh]b['a i gh' cWV' f' fbh' Yfk']gY' hY' X]gd' Umk]' VY' U' a YUb]b['Ygg' 'i a VY' cZ Z [i fYgž' UbX' h']g']g' UWV']Yj YX' VmU' ck]b['hY' WcW']b\]V]h]d]b' cZ hY' Vči bhYf#X]gd' Um' a cXi 'Y' hc' [c' ck' Xi f]b['Ub' Uddfcdf]UhY' dYf' cX' cZ V' Ub_]b[" hY']bhYfj U' VYhk YYb' Vči bh]b['dYf' cXg']g' XYhYfa]bYX' Vm hY' UW]cb' cZ hY' f]dd' Y' Vči bhYfž']b' Včb' i bW]cb' k]h' hY' Vči bh]bhYfj U' Včbhf' c' Yf' fUbch' Yf' 8! hmdY V]ghUV' Yč'

5ggi a Y' h' Uh' hY' f]dd' Y' Vči bhYf' \Ug' 'i gh' VYYb' fYgYh' hc' " =h' k]' Vči bh]d']b' V]bUfmi dcb' fYW']j]b[() \$' <n' WcW' 'di 'gYg' Zcfa' hY' X]j]XYf' WU]b' " : cf' hY' h]a Y']bhYfj U' h' Uh' hY' ci hdi h' E (']g' ck ž' hY' XUHU']bdi h' cZ hY' Vči bh]bhYfj U' Včbhf' c' Yf' k]' VY' \YX' ck ž' Ug' k]' hY' E' ci hdi h']ffYgdYVWj Y' cZ %\$\$\$' <n' WcW' 'di 'gYg' VY]b [Udd' YX' hc' hY' WcW']bdi h' <ck Yj Yfž' cbW' &' WcW' 'di 'gYg' \Uj Y' VYYb' fYW']j YXž' E ([cYg' \] [\ " K \Yb' hY'

bYl h' WcW' 'di 'gY']g' Udd' YX' hc' hY' Včbhf' c' Yfž' E [cYg' \] [\ž' W]i]g]b['hY' WcW']b\]V]h]bdi h' hc' [c' ck ž' U' ck]b['Ca G! k cfh' cZ' di 'gYg' Zcfa' hY' gi VhfUWj Y'a]l Yf' hc' fYUW' hY' Vči bhYfg' " 5h' hY' gUa Y' h]a Yž' hY' f]dd' Y' Vči bhYf']g' fYgYh' hc' nYfcž' W]i]g]b['E (' hc' [c' ck' "Cb' fYW']j]b[']hg' bYl h' WcW' 'di 'gYž' hY' E' cZ hY' Včbhf' c' Yf' [cYg' ck ž' UbX' gc' hY' dfcW' gg' Včb]bi Yg' " " " =h' k]' U' gc' VYYb' bchYX' h' Uh' Ug' E ([cYg' \] [\]h' cdYbg' hY' k Um' Zc' f' U' C' "a G' fYgYh' di 'gY']a a YX]UhY' mdfcWYX]b ['U' Vči bh' dYf' cXž' fYgYh]b ['hY' Vči bh' hc' nYfc'

H\]g' Včbhf' c' []WUh' Z]fgh' a Um' gY' Ya 'i bbYW' ggUfmiUg']h' k' ci 'X' Udd' YUf' a i W' YUg' Yf' hc' Vči bh' Xi f]b ['U' V' Ub_]b ['dYf' cXg' " H\]g' a Yh' cX' k Ug' cf'] []bU' mUXcdhYX' Vm' hY' Ui h' cfž' Vi h' Ub']bhc' YfUV' Y' Ua' ci bh' cZ']hYf' cWV' ffYX' Xi Y' hc' hY' %\$\$\$' <n' fYUgh' g] [b]Z]W]b' h' X] []h' W' Ub []b ['U' h' Yf' bUHY' m' VYhk YYb' h' k' c' X] []hgž' h']g' W' Ub [Y' hU_]b ['d' UW' 'Uh' Ubm' ZFYEi YbWm' Zcfa' '\$' hc') \$' <n'

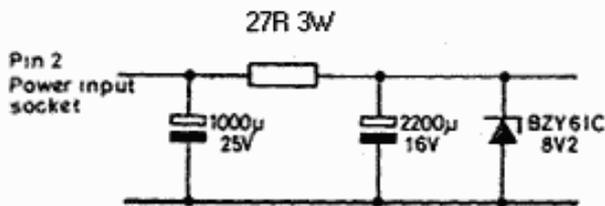
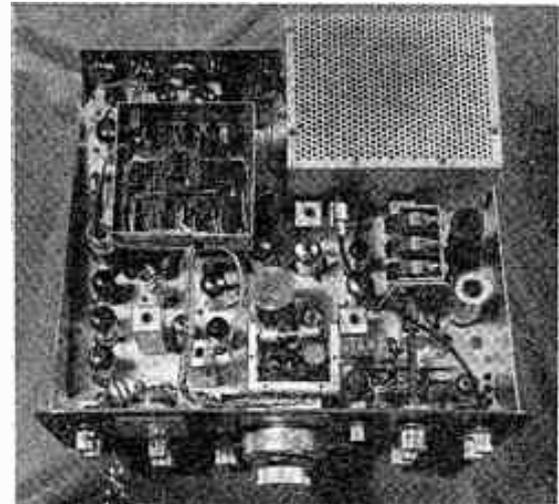


Fig.3 POWER SUPPLY

:][" " 'g\ck g'U'gi]hUV'Y'dck Yf'gi dd'mZcf'h'Y'X]gd'Umž'dck Yf' VY]b['XfUk b'Zca 'h'Y'ž '%&J '87'Uj U]UV'Y'k]h]b'h'Y'f][ž' i gYX'Zcf'fY'Umigk]hW]b["

A cX]Z]Vh]cbg

GY'Y'd\chc[fUd\g" 'H'Y'dfchchmdY' i b]h'k Ug'Vč'bgf'fi V'W'X'cb' J YfcVcUfX'fi g]b['% 'gcW'Yhg'UbX' i gi U'7A CG'dfYVWi h]cbgž'UbX'a ci bhYX']b'U'ga U''Ui a]b]i a 'Vcl '%\$\$'I '%\$\$'I ' ' \$a a "]b'X]a Ybg]cbgž']b'hi fb'a ci bhYX'cb'h'fYyž') \$a a " ghUbXcZg'UVcj Y'h'Y'HI #F'I 'fY'Umğ" 'H'Y' cf][]bU'UbU'c[i Y'X]U'k Ug'fYa cj YX'UbX'U' (!X][]hž'+!gY[a Ybhž' @98'X]gd'Uma ci bhYX'cb' J YfcVcUfX' UbX'g'chYX']b'Zfcbh'cZ'h'Y' J: C'Vcl'k Ug'UXXYX" 'Hc'W'YU'Y'U'a cfY'f'f'cZ'gg]cbU'fi'cc_ž'h'Y' dYfgdYI 'k]bXck'k Ug'fYa cj YX'UbX'U' [fYm'VcfX'Yf'fgi f'fci bX]b['h'Y' X]gd'Umž'k Ug'UXXYX' i g]b['UYfcgc' 'gd'fUmidU]bh'



5Vcj Yž: [YbYfU''Umci hicZ; (B75fj' dfchchmdY'' 6Y'ck ž'XYHU]g'cZ]bg]XY'h'Y'J: C'Vcl'g\ck]b['h'Y'UXX]h]cb'cZ'7I ' 'f'b'h'Y'dfchchmdYž' Ug'U' (+d: 'WdUW'hc'f'k Ug'bch'hc' \UbXž'U') *d: 'k Ug'Vč'bbY'W'YX']b' gYf]Yg'k]h'U' (+\$: 'Ł'

:][" ('XYHU]g'\ck 'F: ' d]W'i d'Zca 'h'Y'J: C' k Ug'XYf]j YX" ' =b]h]U'mi F: 'd]W'i d'k Ug' UWX]Yj YX'Zca 'h'Y' Vi ZYfYX'ci hdi h'Zca ' h'Y'J: C'Vcl' /'h']g'UffU'ub[Ya Ybh'k cf_YX'Z]bY'cb'fYVW]j Yž'Vi h'U' f]Vč'dY'd'UWX'Uh'h']g'dc]bh'Xi f]b['hf'U'bg'a]h'fYj YU'YX'U' a i 'h]i XY'cZ'ZfYei YbVYg'Xi Y'hc'h'Y'U'V]cb'cZ'WcgY! Vč'i d']b[' k]h' 'h'Y'VU'UbW'X'a]l Yfž'J (" 'H'Y'UXX]h]cb'cZ'7I 'f(+d: 'g]j Yf' a]W'Ł']bhc'h'Y'J: C' d'fcj YX'hc' \Uj Y' bch'XY'f]a YbhU' 'YZZY'Wg" ' FYa cj U'cZ'h'Y'hc'd'cZ'h'Y'J: C'fYj YU'g'U'Vč'bj Yb]Ybh'ZfYY'HU[' cb'k \]W'hc'a ci bh'7I ž'UbX'U'ga U''\c'Y'Xf]'YX']b'h'Y'g]XY'cZ' h'Y'J: C'Vcl']g'i gYX'hc'd'Ugg'h'Y'a]b]Uhi fY'Vč! U! " '6cgh_ž'cf'U' g]a]Uf'UX\Yg]j Yž']g'i gYX'hc'gYV'fY'h'Y'WdUW'hc'f'UbX'ch'Yf' k]f]b['Zca 'h'Y'YZZY'Wg'cZj]VfU]h]cb"

7cbW] g]cb

H'Y'X]gd'Um\Ug'VY'Yb']b' i gY'Uh'h'Y'Ui h'cf'f]E H< 'Zcf'gYj YfU'a cb'h'gž'dfcj]b['hc'VY']bj U'i UV'Y'Zcf'bY'h]b[' UbX'dfcj]X]b['Uj Yfm'YVč'bca]W'g'c' i h]cb'hc'h'Y'dfcV'Ya 'f'h'Y'dfchchmdY'k Ug'Vč'bgf'fi V'W'X'Zcf'Ygg'h'U'b'œ')]bW] g]j YŁ' 'H'Y' i gY'cZ'U'g'WY'YbYX' \ci g]b['Y']a]bUhYX'U''h'Y' i gi U'fb'Ugh]Yg'fž' bcbY'VY]b['XY'h'V'W'X'k \]gh' a bb]b['h'Y'f][']bhc'U'Xi a a m'cUX"

8 = #5 @G5 HCB'C: 'H<9' ?K !&\$\$\$6 'HF5 BG7 9 =J9 FžD<5 G9' =

5'G=A D@9'588!CB'J: C'GH56=@G9F 'HC'7CAD@9A 9BH'H< 9'8=, =H5@'8-GD@5M8 9G7F =698' =B' @5GH'A CBH< fG' =GGI 9'D9H9F '>' "7CC?ž; (B75

CB9'cZ'h'Y'Z]gV]bU]h]b['UgdYVW'g'cZ'a cXYfb]g]b['c'XYf'Yei]da Ybh'f'cf'Zcf'h'U'ha U'hY'fž'dfchchmdY' Vč'bgf'fi V]h]cb'Ł']g'h'U'bc'gccbYf' \Ug'U'dfcV'Ya 'VY'Yb']XYbh]Z]YXž'gc' i h]cbg'Zci bX'UbX'a cX]Z]Vh]cbg' Vč'a d'Y'hYXž'h'U'bh'bh]cb']g'V'fci [\h'f'Ug'U'fYgi 'hc'Z'h'Y']b]h]U'a cX]Z]Vh]cb'Ł'hc'ch'Y'fž'cZ'h'Y'b'a cfY'gi V'hYž' g'cf'h'Vč'a]b['g'k]h]b'h'Y'Yei]da Ybh'5' Vč'bgYei YbW'cZ'h']g']g'h'U'U'Vč'bh]bi ci g'dfc'W'gg']g'g'Yhi d'cZ' gi V'W]gg]j Y'a cX]Z]Vh]cbgž'k]h'f'lc'dYž' 'nŁ'Ub'YbX'dfcXi V'h'U'h'dYfZca g'YI U'V'mhc'h'Y']bX]j]Xi U'f]k]g'Yg" ' H']g'UddfcUW']g'i bXci V'hYX'm'h'Y'VYgh'Zcf'\ca Y'Vč'bgf'fi V]h]cbž'Ybgi f]b['h'U'h]bX]j]Xi U'V'f'W']h'Y'Ya Ybh'g'Xc']b'Z]Vh]k cf_VY'Zcf'Y'gh]b[]b['h'Ya 'U''hc[Y'h'Yf" 'H'Y'fY']g'bch]b['a cfY'Zfi gh'fU]h]b[ž' \Uj]b['bYU'h'm'Vi]h'U' 'Uf[Y'dfc'Y'Vč'h'U'bi fb]b['cb'hc'Z]bX'bch]b['\UddYbg'f'UbX'Yj Yb'k cf'gYž'g'Y]b[']h['c' i d']b'ga c_Y'Łž'hc'VY' Z]V'X'k]h' 'h'Y'dfcgdYV'hc'Z'VfYU_]b[']h'Xck b'hc'Z]i 'H'Z]bX' '=h'k Ug'Zcf'h']g'fYU'gcb'h'U'h'Y'UVcj Y'h]h'Y'k Ug' V'W'cgYbž'h']g'i b]h'VY]b['h'Y'gY'Vč'bX'a cX]Z]Vh]cb' i bXYf'U_Y'b'cb'h'Y'fč'X'Z]h]ž' 'fi? K !&\$\$\$6"

<Uj]b['Včbghfi WYX'U'X][]HU' ZFyei YbVhX]gd'UmZcf'hY'?K !&\$\$\$6ž]hfUd]X'mVYWwa Y'UddUFYbh'f gh\ck' a i W'hY'J: C'Xf]Zhg'Zfca]b]h]U'hi fb!cbž'UbX]bXYX'Zcf'gYj YfU'\ci fg'UZhf'K \Yb'i g]b['hY'f]['Zcf'7K 'cf' GG6'VčbHUVg'h]g'Xf]Zhi]g'ei]hY'hc'YfUV'Yž'g]a d'mbYVW'gg]HU]b['U'g][\h'k YU_ 'cZ'hY'hi b]b['Yj Yfmbck' UbX' U[]U]b'" <ck Yj Yf'Zcf'hY'a cfY'ZFyei YbVhif]Ybg]h]j Yfia cXYg'gi W' Ug'FHHMcf'GGHJ'hY'dfcV'Ya 'VYVč'a Yg' a cfY'UW'hY/'Zcf']bghUbWž']b'hY'Ui h'cf]g'WUgYž'cVhU]b]b['fY']UV'Y'Včdm'Zfca 'hY'Gi bXUma cfb]b[; 6&5H; FHHMVfcUXWUghg'cb', \$a "k ci 'X'bj c'j Y'hfUW]b['hY'J: C'h'fci [\ci h'hY'hfUbg]]gg]cb'"5XX]h]cbU'nž'h]g']b\YfYbhXf]Zhd'fcj Yg'hc'VY'j YfmUbbcm]b['Zcf'hY'X]ghUb'hfYW]j Y'ghU]cb'Xi f]b['hfUbg]]gg]cbž']b'hi fb' \Uj]b['hc'hfUW_ '\]g#Yf'J: Cž'cZ'hYb'fYgi 'h]b[']b'hY'E GC'k UbXYf]b['i d'UbX'Xck b'hY'VUbX'UhUb'U'Ufa]b['fUH"

5g'a i W'cZ'hY'k cf_]b'dfcXi W]b['gca Y'hmdY'cZ'X][]HU'ghUV]gUh]cb'i b]h\UX'U'fYUXmVYb'i bXYfHU_Yb'k]h' hY'Včbghfi W]cb'cZ'hY'X][]HU'X]gd'Umž'U'g]a d'Y'UXX!cb'i b]h'VYWwa Y'U'j YfmUhfUW]j Y'gc'i h]cb'hc'hY' d'fcV'Ya "

K]h]b'hY'J: C'Hub_ 'VfW]h'cZ'hY'f&\$\$\$6'hY'fY'UFY'fj YfmVčbj Yb]Ybhnt'k c'87'Včbhf'c'YX'j Uf]WUd'X]cXY' V'fUbW'Yg'/cbY'cZ'k \]W']g'i gYX']b'hY' =F'H'VfW]hf'ž'hY'ch'Yf']bj c'j YX']b'hY'W']VfU]cb'UX'f'gha Ybh'cZ'hY' bck'cVgc'YgW'bh'UbU'c[i Y'X]U'"'I gY']g'a UX'Y'cZ'h]g']b'hY'ghUV']gYf'VfW]hf'ž'YbUV]b['UbmicZgYh'ZFyei YbVh' hc'Vč'a dYbgUH'Zcf'Xf]Zhc'VY'WYUH'X'VmU'ga U'W'Ub[Y']b'hY'ghUX'm'fYj YfgY'V]Ug'87'j c'hu[Y'UW'cgg'hY' j Uf]WUd'X]cXY'"5b]b'WYUgY']b'h]g'j c'hu[Y'k]'fYXi W'hY'WUdUW]h]j Y'YZYVh'cZ'hY'X]cXY'UbX'W]i gY'hY' ZFyei YbVh'hc'f]gY'"7cffYgdc]b['nž'U'fYXi W]cb']b'j c'hu[Y'k]']b'WYUgY'hY'WUdUW]h]j Y'YZYVh'UbX'hY' ZFyei YbVh'k]'ZU'"

CdYfUH]cb

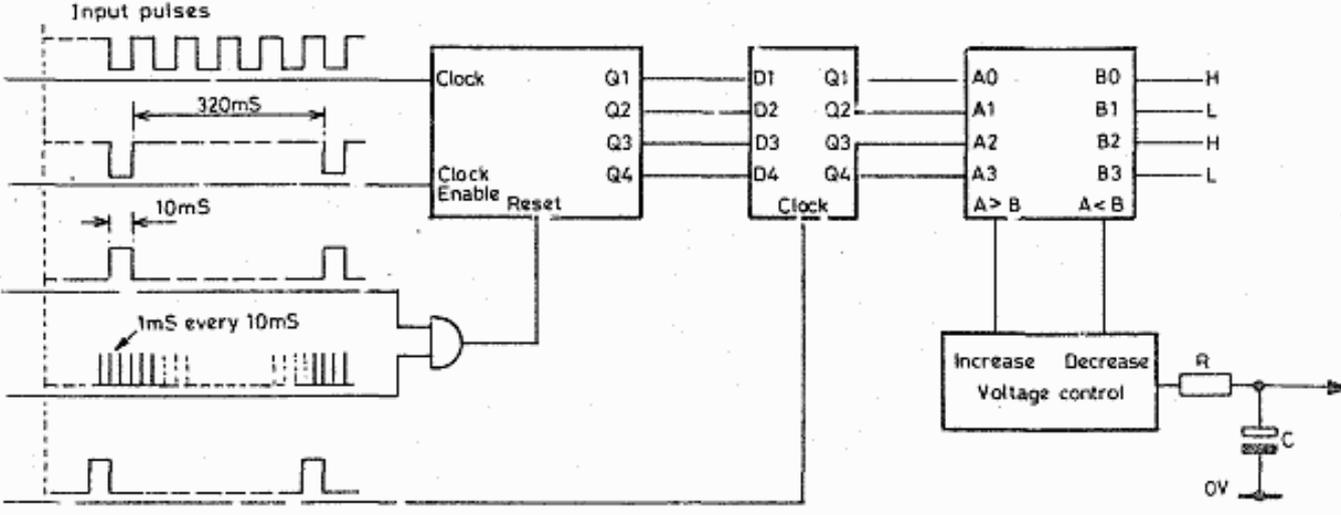
H'Y'VUg]Wci h]bY'cZ'hY'gmghYa]g'g\ck b]b:]["'%ž'U'"dck Yfž'Včbhf'c'UbX'h]a]b['g][bU'g'VY]b['XYf]j YX' Zfca 'hY'X][]HU'X]gd'UmVcUfX'"=bdi h'di 'gYgž'gi dd']YX'Vm'hY'gi VhfUW]j Y'a]i Yf'f=7'+L']b'hY'X]gd'UmVcUfX' UfY'Udd']YX'hc'hY'WcW_]bdi h'cZ'hY'678'Vč'i bhYfž'=7%("H'Y'g][bU'Udd']YX'hc'hY'WcW_ 'YbUV'Y']bdi h'cZ'hY' Vč'i bhYf']gž']b'ZUVž'YI U'Vh'm'h'Uh'Udd']YX'hc'hY'Vč'i bhYfg']b'hY'X]gd'UmVcUfX"

HUV'Yg'cZJ U'i Yg

:]["'&
F% 'hc'F&%ž'F&' 'hc'F&) '1' (+?ž'F&&'1' %A'ž'F&*'ž'F&+'1' %?'ž'F&, '1' (+\$?'ž'7) '1' %\$\$\$'d: '7*'1' %\$\$\$'d: '7+'1' &&\$'a: '%&J'XYW'7, '1' %\$\$\$'b: 'dc'mYghYf

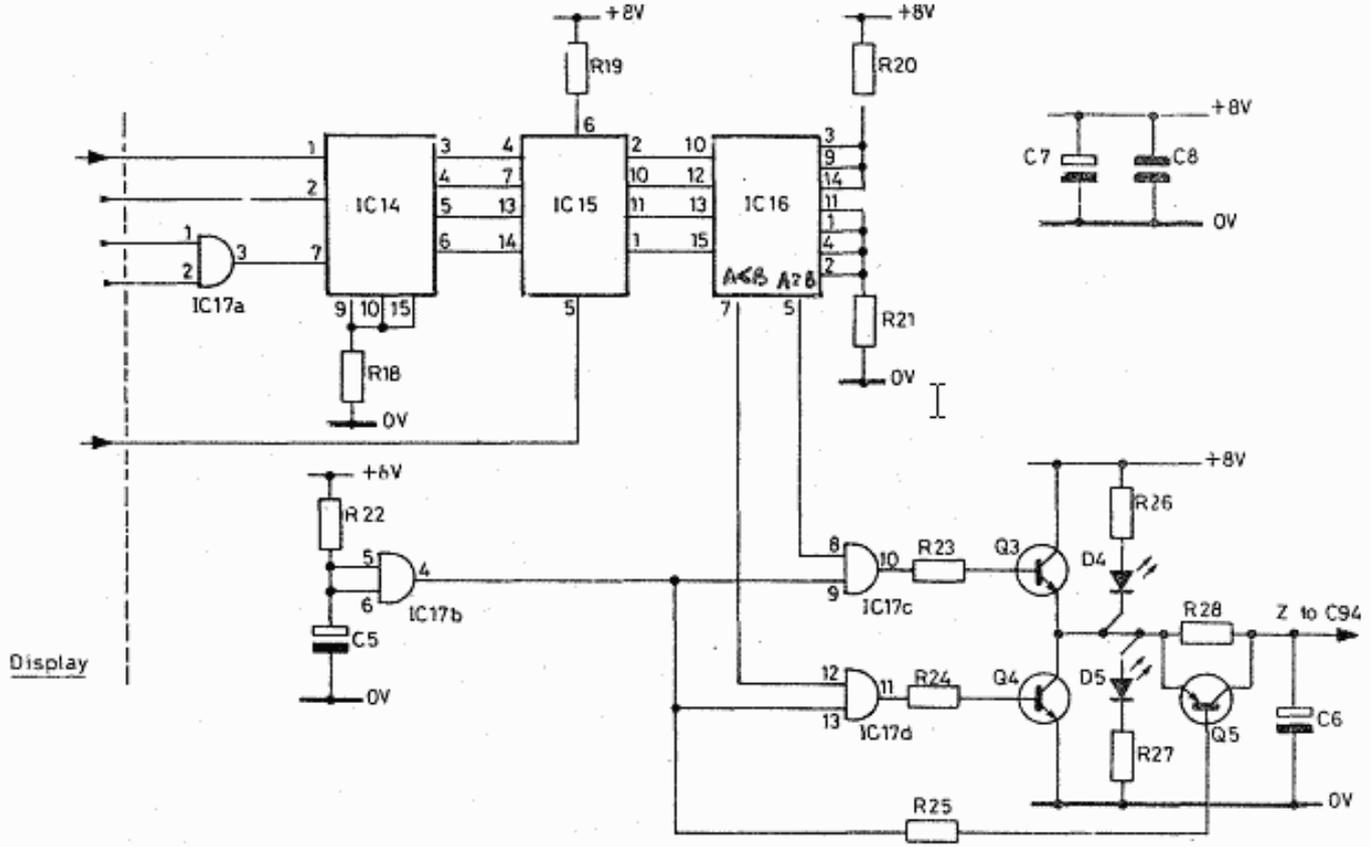
BchY. 'WUdUW]h'c'f'g'7) ž'7*'g\ci 'X'VY'dfYZYfUV'm'ck! 'YU_U[Y'hmdYgž'gi W' Ug'hU]b]U'i a 'f\$J'k cf_]b["

:]["'(
FJ8'1' %?']bYUfž'F5ž'F7'1' %\$?'F6ž'F9'1' ' ?'



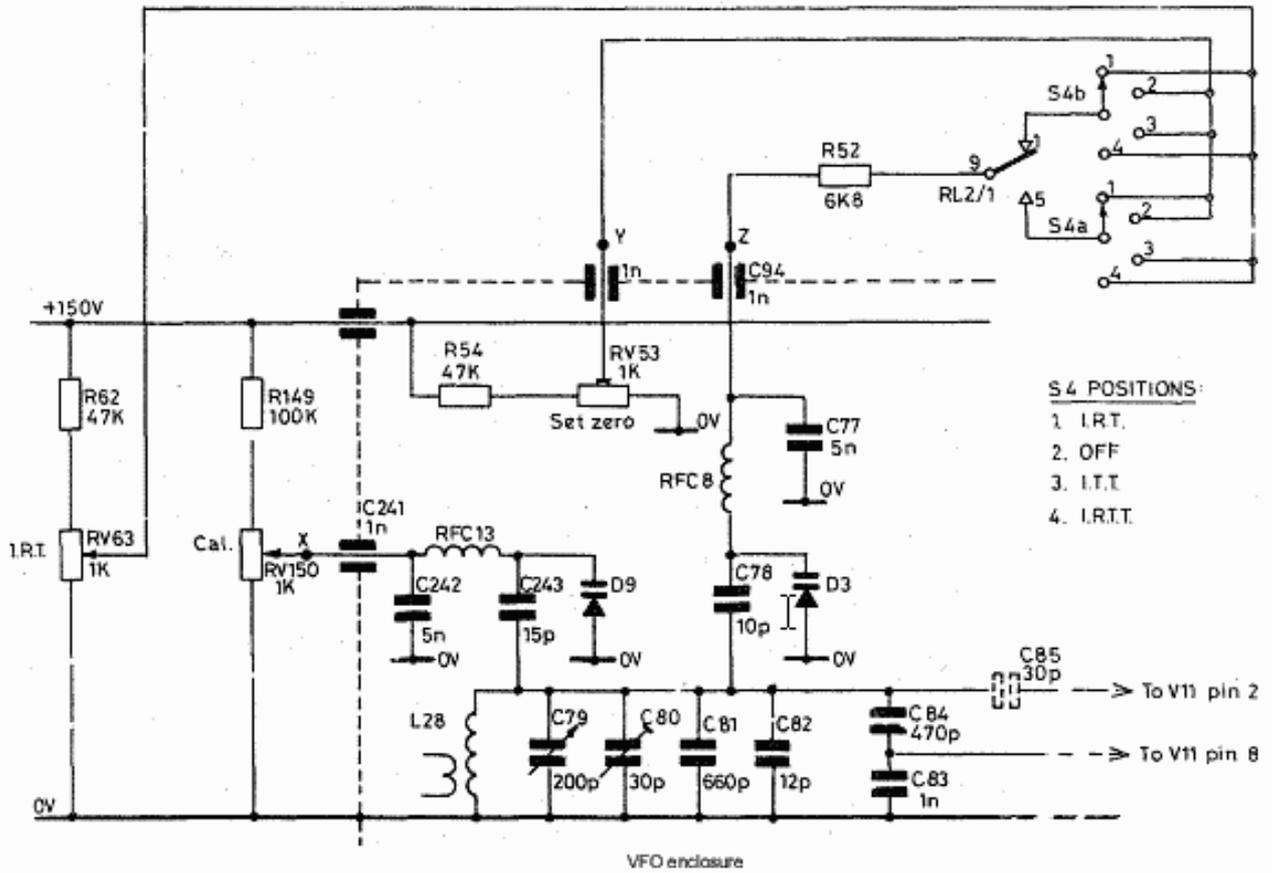
:]["'%"

=b`h`Jg`WUgY`ck Yj Yfz`Ug`h`Jg`g`[bU`Jg`VebbYVWX`hc`h`Y`WcW`YbUV`Y`Jbdi`h`fUg`X`Jgh`b`Vh`Zfca`h`Y`WcW`
Jb`V]h`Jbdi`h`z`h`Y`Vei`bh`k`j`VY`Zcf`&\$a`Gz`Zc`ck`YX`VmU`Ca`G`Jb`V]h`dYf`cX`5g`h`Y`Vei`bh`Jg`cdYfU`h`cbU`
Zcf`Uddfcl`Ja`UH`m`#`!gYVebXz`h`Y`ci`hdi`h`Zfca`h`Y`Vei`bh`f`k`j`VebgJghcZ`h`Y`Zci`f`YUgh`g`[b]Z]WU`bh`V]h`g`
fYdfYgYbh`b`[h`Y`ZfYei`Yb`W`h`b`<n`ghYdgz`Xi`f`b`[h`Y`Ca`G`Jb`V]h`dYf`cX`h`Y`Vei`bh`Jg`Udd`YX`hc`h`Y`UH`W`z`
=7%`z`UbX`h`Y`Vei`bh`f`Jg`gi`VgYei`Ybh`m`fYgY`h`b`Ub`h`V`dU`h`cb`cZ`h`Y`b`YI`h`Vei`bh`dYf`cX`h`Y`ci`hdi`h`cZ`h`Y`
UH`W`Jg`Udd`YX`hc`h`Y`f`b`fi`Jbdi`h`cZ`=7%`z`U`(!V]h`a`U`[b]h`XY`Vea`dUfU`h`c`f`h`Y`f`b`fi`Jbdi`h`Jg`gY`h`c`XY`b`U`f`m`)
f`\$`\$`%`Jb`V]b`U`f`r`L`"



:] ["&"

Hk`c`ci`hcZ`h`Y`h`f`Y`ci`hdi`hg`Zfca`h`Y`Vea`dUfU`h`c`f`U`f`Y`i`gYXz`526`k`W`k`J`[c`\\`[\\`k`\\`Yb`h`Y`a`U`[b]h`XY`
cZ`Jbdi`h`f`b`fi`Jg`Zfca`*`hc`-`UbX`506z`k`\\`W`k`J`[c`\\`[\\`k`\\`Yb`h`Y`a`U`[b]h`XY`cZ`f`b`fi`g`Ygg`h`Ub`h`Uh`cZ`f`b`fz`"
Y`Zfca`\$`hc`(`H`Y`g`Y`ci`hdi`hg`U`f`Y`Z`Y`X`hc`h`Y`j`c`hU`[Y`Veb`h`c`i`b]h`k`\\`W`Udd`Yg`U`j`c`hU`[Y`f`j`/U`h`Y`\\`[\\`
fYg`gh`Ub`W`fYg`gh`c`f`z`F`E`hc`h`Y`W`d`U`W`h`c`f`UbX`h`Y`j`U`f`W`d`X`c`X`Y`k`]h`Jb`h`Y`J`C`h`Ub`_`W`V`W`]h`H`Y`j`c`hU`[Y`
Veb`h`c`i`b]h`k`j`b`W`Y`U`g`Y`h`Y`j`c`hU`[Y`U`W`c`g`g`k`\\`Yb`526z`a`U`b`hU`b`U`Veb`gh`Ub`h`j`c`hU`[Y`k`\\`Yb`5`1`UbX`
XY`W`Y`U`g`Y`h`Y`j`c`hU`[Y`c`b`h`Y`W`d`U`W`h`c`f`k`\\`Yb`506`H`Y`f`U`h`c`Z`W`Ub`[Y`c`z`j`c`hU`[Y`g`Veb`h`c`Y`X`V`m`h`Y`j`U`i`Y`g`
c`Z`F`Ub`X`UbX`h`Y`h`a`Y`Veb`gh`Ub`h`k`U`g`Z`ci`b`X`hc`V`Y`Z`U`f`m`W`]h`W`]b`h`Y`U`i`h`c`f`f`i`b]h`Z`c`f`ga`c`h`c`d`Y`f`U`h`cb`
cZ`h`Y`g`h`U`V`]g`Y`f`z`U`h`ci`[\\`U`U`f`[Y`f`U`b`[Y`c`z`j`U`i`Y`g`k`U`g`h`f`Y`X`Ub`X`[U`j`Y`g`U`h`g`Z`U`W`c`f`m`f`Y`g`i`hg`"



- S 4 POSITIONS:**
1. I.R.T.
 2. OFF
 3. I.T.T.
 4. I.R.T.T.

Fig.3 KW2000B EXISTING I.R.T. CIRCUIT

=ZY]h\Yf'F'cf' UFY'cZ'hc'ga U''U'j U'i Yz'U'bc]WUV'Y'fk UfV'b['hcbYfi]g'dfcXi WX'Xi Y'hc'fUd]X'W'Ub[Yg'j]b' h\Y'j U'i Y'cZ] c'HU[Y'Ug'h\Y'ghUV]]gYf'c'j Yfg'cch]hg'cW]b['dc]bh'7cbj Yfg'Y'mz'Z'F'UbX' UFY'cZ'hc'UF[Y'U' j U'i Yz'h\Y'ghUV]]gYf'k]' 'bch'VY'UV'Y'hc'Vtd'Y'k]h\ h\Y''Uf[Y'Z'Yei YbV'mXf]Zhg'cWV'ff]b['gccb'UZ'Yf'hi fb!cb' UbX'cW'k]' 'VY'cgh' H\Y'cW]b['dc]bh'YI]gh'k \Yb'h\Y'VtbX]h]cb'5'1' '1') 'cWV'fg'k]h]b'h\Y'a U[b]hi XY' Vta' dUfU'hc'fz'Uh'k \]W' 'dc]bh'U'VtbghUbh] c'HU[Y'k]' 'VY'dfYgYbh'cb'h\Y'j Uf]Wd'X]cXY'' H\Y'cW]b['dc]bh'g' cWV'f'Uh'Uddfcl]a'Uh'Y'm' ' <n'ghYdgz'cbW' h\Y'hi b]b['j'g'Yh'cb'hc'U'gdYV'Z'W'Z'Yei YbV'mz'UbX'h\Y'i b]h'k]' 'cW' hc'h\Y'bYUfYgh'gh'd'UbX'fYa U]b'h\Y'fY'i bh]'h\Y'hi b]b['j'g'U[U]b'UX'i ghYX''5ggi a Y'h'Uh'h\Y'J: C'Xf]Zhg' g][\hm\][\cZ'h\Y'cW]b['dc]bh'fVf'Y''Vma'cfY'h'Ub' ' <nE' Ug'h\Y'J: C'Z'Yei YbV'mf]gYg'z'h\Y'ci hdi h'Z'fa' h\Y'gi VhfU'V'h] Y'a]l Yf'k]' 'ZU'z'j]b'hi fb'W'i g]b['h\Y'a U[b]hi XY'cZ'f5f'hc'ZU''506'k]' '[c'\][\z'XYW'YUg]b['h\Y' j c'HU[Y'cb'h\Y'j Uf]Wd'z'j]b'W'YUg]b['h\Y'YZZ'V'h] Y'Wd'U'V'h'Ub'W'j]b'h\Y'j'Ub'V'f'W'h'UbX'ck'Yf]b['h\Y'J: C' Z'Yei YbV'm' H\g'U'V'h]cb'k]' 'HU'Y'd'U'W'i bh]'h\Y'VtbX]h]cb'5'1' '1')]g'U'h]b]YX'z'i dcb'k \]W'h\Y' j c'HU[Y'fcb'W'U[U]b'fY'hi fbg'hc'U'VtbghUbh] U'i Y''l g]b['h\]g'a Y'h'cX'cZ'cW]b[z'Xf]Zhg'j]b'Y]h\Y'f'X]fY'V'h]cb'W'Ub' VY'W'h'fYX'Z'cfz'Yb'UV]b['Y] Yb'h\Y'a cgh'gh' VV'cfb'cZ'cgV'U'hc'fg'hc'VY'f'f'U'a YX'fiYUg]m'

:][''&'XYHU]g'h\Y'gW'Ya Uh]WX]U[fUa'cZ'h\Y'i b]h' H\Y'cdYfU]h]cb'Zc'ck'g'h'U'hc'Z'h\Y'V'cW'X]U[fUa'Vi'h'k]h' cbY'ja dcfh'Ub'h'UXX]h]cb'U'Z'W'Y]h'm': cf'h\Y'YZZ'V'h] Y'cdYfU]h]cb'cZ'h\Y'i b]h]h]g'YggYbh]U'h'Uh'h\Y'Wd'U'V'hc'f' fl *]b':][''&E'g'W'Uf[YX'hc']hg'gh'YUX'm'gh'U'h] j U'i Y'f]b'h\Y'W'g'Y'cZ'h'g'i b]h'z' ('j'c'hg'VY'Z'cfY'Ub'm'U'h'Ya dh'Uh' ghUV]]g]h]cb']g'a UXY'Z]i fY'hc'Xc'h']g'k]' 'fY'gi 'h]b'h\Y'Wd'U'V'hc'fVY]b['cb'm'd'U'f]U'm'W'Uf[YX'cb'h\Y' Z'fa' Uh]cb'cZ'h\Y'Z'fgh'cW]b['dc]bh'z'UbX'Z'U'dcg]h]j Y'J: C'Xf]Z'hc'W'fg'fW'i g]b['506'k'h\Y'b'h\Y'Ua'ci bh'V'm' k \]W'h\Y'Wd'U'V'hc'f'W'Ub'X]g'W'Uf[Y'k]' 'VY'g'j YfY'm'ja]hYX'1']b'hi fb'ja]h]b['h\Y'Ua'ci bh'cZ'ghUV]]g]h]cb' d'cg]V'Y''

VY`i a]bUhYXz]bX]WWh]b[`h Y`X]gW Uf[Y fbcf`50 6E`VebX]h]cb": fca `h Y`HUV`Y`cZj U`i Ygž`]h`Wb`VY`gYYb`h`Uh`
F &, `fg\`ck b`Ug`F`]b`:`]["`%&`UbX`7*`f7`]b`:`]["`%&`UfY`cZ`Vta`dUfU]h] Y`m`Uf[Y`j U`i Y`" Hc`YZZY`W]j Y`m`V`Uf[Y`7*`
hc`h`Y` (J`j U`i Y`k Ug`Zci bX`hc`HU`_Y`Ufci bX`%\$`a`]bi hYg/`cVj]ci g`m`h`]g`h]a Y`]bhYfj U`]g`YI`W`gg]j Y`" H`Y`
UXX]h]cb`cZF &) `UbX`E) `k`]`YZZY`W]j Y`m`g`c`f`H`V`f`W`]h`F &, `Zcf`h`Y`Xi`fU]h]cb`h`Uh`h`Y`ci`hdi`hc`Z`%`%+` `]g`Uh`
`c[]W\$ž`VYVta`]b[`U`j]fhi`U`]b]b]hY`fYg]gh]UbW`Ug`gccb`Ug`h`Y`ci`hdi`h`Z`]dg`hc`h`Y`fifighU]hY`" =b`h`]g`k`Unž`j`Yfm`
YZZY`W]j Y`]b]h]U`hi`fb`cb`V`Uf[]b[`c`W`V`fgž`k`\\]gh`a`U]bh]b]b[`U`gi`Z]V`Y`bh`m`l [`F`ž` `h]a`Y`V`eb`gh]Ub`h`

A cX]Z]WWh]cbg

:]g`" `UbX`(`XYHU]`h`Y`f`Y`j`Ub`h`d`U`f`h`g`c`Z`h`Y`j`:`C`V`f`W`]h`f`m`V`Y`Z`c`f`Y`Ub`X`U`Z`h`Y`f`a`c`X`]Z`]W`H`]cb`ž`d`c]bhg`
fL`fifM`bb`Y`V`W`Y`X`hc`di`fd`Y`k`]fYŁ`fM`fifM`i`Y`k`]fYŁ`UbX`fM`fifM`Y`ck`k`]fYŁ`VY]b[`V`eb`b`Y`W]j`cbg`hc`Z`Y`X`h`fci [`\\`
W`d`U`V`h`c`f`g`c`b`h`Y`V`ch`ca`c`Z`h`Y`j`:`C`Y`b`W`c`gi`f`Y`" B`ch`Y`h`U`h`h`Y`fc`Y`g`c`Z`h`Y`j`Uf]W`d`X]c`X`Y`V`f`U`b`W`Y`g`U`f`Y`]b`
Z`U`V`h`f`Y`j`Y`f`g`Y`X`/`h`U`h`]gž`h`Y`cb`Y`k`\\]W`k`Ug`i`g`Y`X`Z`c`f`h`Y`=F`H`V`f`W`]h`f`m`V`Y`Z`c`f`Y`a`c`X`]Z`]W`H`]cb`]g`b`ck`i`g`Y`X`Z`c`f`h`Y`
ghUV]`]g`Y`fž`h`Y`X]c`X`Y`V`f`U`b`W`d`f`Y`j`]ci`g`m`i`g`Y`X`]b`h`Y`W`]V`f`U`h`Y`V`f`W`]h`f`m`b`ck`V`Y]b[`i`g`Y`X`Z`c`f`h`Y`=F`H`" H`Y`
UXX]h]cb`c`Z`h`Y`Z`ci`f`f`Y`g]gh`c`f`gž`F`5`hc`F`9ž`k`]`f`Y`X`i`W`h`Y`Y`Z`Z`Y`W]j`Y`g`d`f`Y`U`X`c`Z`h`Y`=F`H`V`eb`h`f`c`Z`f`ca` `*`_`<`n`
fk`\\]W`h`Y`U`i`h`c`f`Z`ci`b`X`j`Y`f`m`U`k`_`k`U`f`X`i` `f`Y`ei`]f]b[`f`g]U`Z`Y`W`U`W`Y`f`f`i`Z]b[`Y`f`g`hc`b`Y`h`d`f`Y`W]g`Y`m`cb`Z`f`Y`ei`Y`b`W`h`hc`
U`Y`g`g`X`U`i`b`h]b[`~`*`\$`\$`<n`" H`Y`V`ta`d`Y`h`Y`ghUV]`]g`Y`f`g`c`i`X`V`Y`d`U`W`Y`X`]b`U`g`W`Y`Y`b`Y`X`V`cl`f]b`h`Y`g`U`a`Y`V`cl`U`g`
h`Y`X`]g`d`U`m`i`b]h]Z`d`c`g`g]V`Y`Ł`ž`k`]h`8`(`UbX`8)`a`ci`bh`Y`X`]b`h`Y`X`c`Z`h`Y`V`cl`gc`h`U`h`c`d`Y`f`U]h]cb`c`Z`h`Y`
ghUV]`]g`Y`f`a`U`m`V`Y`f`Y`U`X`]m`V`X`Y`W`Y`X`"



Hits	2776401
	96968
Visitors	328065
	17387
Splog	70