## A/S NORSK DATA-ELEKTRONIKK



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It is often useful to transfere the control of peripheral devices from one CPU to another. A bus switch is designed for this purpose.

A bus switch is shown shematic in the following figure.

## . Bus-Switch



## CPU BUS

Standard NORD-10 I/O bus from CPU or bus controller.

## Extended CPU Bus

Standard NORD-10 I/O bus from the bus switch. This bus is a direct extention of a CPU bus and cannot be switched to the other CPU bus.

## Switch-bus

Standard NORD-10 I/O bus from the bus-switch. It is possible to connect up to four switch-buses to one bus-switch. Each of the four buses may independently select one of the two CPU buses as source bus. The selection of source bus is controlled by an external signal, select signal. The select signal is usually given by a toggleswitch.

## BUS SWITCH

0


Card positions for data, one for each switch -bus.

Data CPU B (extended).
Data CPU B (IN)
Data CPU A (extended) .
Data CPU A (IN)

Card positions for control, one for each switch bus.

Control CPU B (extended)
Control CPU B (in)

Control CPU A (extended)

Cont mol CPUA (in)

Card positions for address, one for each switch bus.

Address CPU B(extended)
Address CPU Bin)
Address CPU A(extended)

Address CPU $A_{\text {(in) }}$

```
A : Address cable
C : Control cable
D : Data cable
P.P.: Plug position, no card
```



CARD NUMBER


BUS
SWITCH




BUS SWITCH CONTROL SIGNALS

IN: Input signal, received on 1073 from device controller.
FAD10: Add address bit 10 to IOX address, decoded from switch on 1073 card. Decoding is described on the 1073 drawing.

FD8: Add bit 8 to ident code. Generated on 1073.
LOWSE L: External signal (from toggle switch) to select bus from CPU A or B. When this signal is true, CPU-A is selected.

Address and data enabling signals are generated from the two signals IN and LOWSEL.

The enabling signal generated and used on Data and Address bus selector (1070) :
Used as CPU address/data receiver, transmitter:
EIN: Enable address or data to CPU (INPUT)
EOUT: Enable address or data from CPU (OUTPUT)
EAO: Enables address/data to A-BUS

EAI (X-Y): Enables address/data from A-BUS
EBO (X-Y): Enabl es address/data to B-BUS
ABI (X-Y): Enables address/data from B-BUS

## Used as address/data selector:

EAO $(\mathrm{X}-\mathrm{Y}): \quad$ Select address/data from A-BUS
EAI (X-Y): Enables address/data on A-BUS
EBO (X-Y): Select address/data from B-BUS
EBI (X-Y): Enables address/data on B-BUS
EOUT: Enables selected address/data out
EIN: Enables selected address/data in


```
CONTROL SIGNALS FROM CPU
```


IDENT - BRANCHING





















## EXTERN CHANNEL FROM CPU

| DRAWN 日Y TS/eml | Harnarks | CPU I <br> CPU CABINET | Replacemenator | Dale |
| :---: | :---: | :---: | :---: | :---: |
| APPROVED EY |  |  |  |  |
| DATE 17/7/74 |  |  | Neplaced by |  |



$$
\text { EXTERN CHANNEL FROM CPU } 2
$$

| DRAWN BY TS/eml | nemarks ${ }^{\text {CPU } 2}$ | Roplacementur | Dato |
| :---: | :---: | :---: | :---: |
| APPROVED BY |  |  | Date |
| DATE 17/7/74 |  | Replacod by |  |

ELEKTRONIKK ADDRESS

NORD－10

| - | -7 <br>  <br>  <br> $\omega$ |  |  |  | $\begin{aligned} & \dot{i} \\ & 0 \\ & o \\ & o \\ & \underset{\sim}{0} \\ & \stackrel{\mu}{\mu} \\ & \text { C } \end{aligned}$ | $\cdots$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EA 15 L | 0 | BERG 95 | ， | I／0 RACK 4 | BERG 65 |
| 1 | EA 15 L | 1 | ＂－ 91 |  | ＂ | 11 64 |
|  | EA 14 L | 0 | 11.93 |  | ＂ | ＂-63 |
| 2 | EA 14 L | 1 | 92 |  | ＂ | ＂-62 |
|  | EA 13 L | 0 | ＂$\quad .91$ |  | 18 | ＂ 61 |
| 3 | EA 13 L | 1 | ＂－ 90 |  | ＂U才 | ＂$\quad 60$ |
|  | EA 12 I | 0 | 89 |  | ＂ | ＂－ 59 |
| 4 | EA 12. | 1 | ＂ |  | ＂ | ＂ 58 |
|  | EA 11 L | 0 | ＂－87 |  | I 10 RACK 3 | BERG 65 |
| 5 | EA 111 | 1 | 1－86 |  | －＂－ | ＂-64 |
|  | EA 10 L | 0 | ＂ 1185 |  | ＂ | ＂ 63 |
| 6 | EA 10 L | 1 | ＂ 84 |  | ＂ | ＂1 62 |
|  | EA 9 L | 0 | $11-83$ |  | ＂m | ＂ 1 |
| 7 | EA 9 L | 1 | 11－82 |  | ＂ 0 | ＂ 4 － 60 |
|  | EA 8 L | 0 | $11-81$ |  | ＂ | ＂ 11 |
| 8 | EA 8 L | 1 | ＂ 80 |  | ＂ | ＂ 58 |
|  | EA 7 L | 0 | ＂ 79 |  | I／O RACK 2 | BERG 65 |
| 9 | EA 7 L | 1 | 11－78 |  | ＂ | ＂ 64 |
|  | EA 6 I． | 0 | $11-77$ |  | ＂ | 63 |
| 10 | EA 6 L | 1 | －＂ 76 |  | ＂ | 62 |
|  | EA 5 L | 0 | －＂ 75 |  | $\cdots \mathrm{N}^{-}$ | ＂－ 61 |
| 11. | EA 5 L | 1 | 4－74 |  | $\because 0$ | $\pi-60$ |
|  | EA 4 L | 0 | \％ |  | ＂ | ＂－59 |
| 12. | EA 4－L | 1 | ¢゙＂ 72 |  | ＂ | $\because \square$ |
|  | EA 3 L | 0 | ご1 71 |  | I／O BACK 17 | 13ERG 65 |
| 13 | EA 3 L | 1 | 0－11－70 |  | －＂1－1 | ＂ 64 |
|  | EA 2 L | 0 | － |  | ＂ | ＂ 63 |
| 14 | EA－2 | 1. | 4 |  | ＂ | ＂ |
|  | EA 11 | 0 | ＂ 67 |  | ＂r－ | ＂ |
| 15 | FA 11. | 1 | $11-66$ |  |  | 60 |
|  | Eid 0 | 0 | ＂ 65 |  | ＂ | ＂ |
| 16 | EA 0 J | 1 | ＂ |  | ＂ | ＂ |
|  | EA 17 L | 0 | $11-63$ |  |  |  |
| 17 | EA 17 L | 1 | ＂ 62 |  |  |  |
|  | EA 16 L | 0 | ＂－61 |  |  |  |
| 18 | EA 16 L | 1 | ＂ 60 |  |  |  |
|  |  |  | ＂ |  |  |  |
| 19 |  |  | ＂ |  |  |  |
|  |  |  | ＂ |  |  |  |
| 20 |  |  | ＂ |  |  |  |
|  |  |  | ＂ |  |  |  |
| 21 |  |  | ＂ |  |  |  |

BUS SWITCH CHANNEL I I

| Dravir by TM／eml | Romarks | CPU I | Replacementiol | 1. |
| :---: | :---: | :---: | :---: | :---: |
| APFROVED BY |  | CPU CAbiner |  | Cito |
| date i5／8／73 |  |  | neplowar |  |



## BUS SWITCH CHANNEL 2

| DRABM BY Til/eml | Remarks | CPU 2 <br> - cpu cabinet | Replacementici | Dne |
| :---: | :---: | :---: | :---: | :---: |
| Arrroved uy |  |  | Reciased by | Dise |
| DNTE i5/8/73 |  |  | Reploced by |  |



## EXTERN CHANNEL FROM CPU

| DRAWN BY TS/em1 | Remarks | CPU I <br> CPU CABINET | Replacement or Daso |
| :--- | :--- | :--- | :--- |
| APPROVED BY |  | Replaced by | Dato |
| UAIE | $17 / 7 / 74$ |  |  |


| AIS NORSK DATAELEKTRONIKK |  | Tille $=$ BUS SWITCH INPUT CONTROL |  |  |  | Drawing no. NORD-10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\dot{8}$ |  |  |  |  |  |  |
| 1 |  |  | BFRG; 3' | i |  |  |
|  |  |  | " 93 | (: |  |  |
| 2 |  |  | " 11 | 13 |  |  |
|  |  |  | " 9? | I) |  |  |
| 3 |  |  | " 31 | F. |  |  |
|  |  |  | " 90 | 11 |  |  |
| 4 |  |  | " 89 | F |  |  |
|  |  |  | " 88 | J |  |  |
| 5 |  |  | $\begin{array}{r}11 \\ \hline 1\end{array}$ | K |  |  |
|  |  |  | " 86 | 9 |  |  |
| 6 |  |  | " 85 | 1. |  |  |
|  |  |  | 1184 | N |  |  |
| 7 | EDRYL | 0 | "1183 | J | BERG 83 | RED/BLACK |
|  | EDRYL | 1 | 82 | S | - 82 | BLACK |
| 8 | EMCL | 0 | 81 | K | 81 | BROWN/PLACE |
|  | EMCL | 1 | 80 | J | 80 | BLACK |
| 9 | EGRANTL | 0 | " 79 | U | 79 | EED/BROW |
|  | EGRANTL | 1 | $\cdots$ | W | 78 | BLACK |
| 10 | EIOXEL | 0 | 77 | $v$ | 77 | B BOWN |
|  | EIOXEL | 1 | " 76 | $X$ | 76 | BLACK |
| 11 | EIDENTL | 0 | $\cdots 75$ | Y | 75 | RED/GREEN |
|  | EIDENTL | 1 | " 74 | AA | 74 | BLACK |
| 12 | EI 10 L | 0 | $\because \quad 73$ | $\underline{Z}$ | 73 | RED |
|  | EI 100 L | 1 | "11 7? | B ${ }^{\text {c }}$ | 72 | BLACK |
| 13 | EI ll | 0 | " 71 | CC . | 71 | BLUE/3LACK |
|  | EI 11 L | 1 | " 70 | F. E | 70 | BLACK |
| 14 | EI 12-L | 0 | 64 | DV | 69 | ORANGE |
|  | EI 12 L | 1 | " 1168 | FF | 68 | BLACK |
| $1 \%$ | EI 131 | 0 | " 1101 | $11 \%$ | 67 | BLUE/BROUS |
|  | EI 131 | 1 | "1- 116 | Kk | 66 | BLACK |
| 16 | EI 15 L | 0 | " 11 | JJ | 65 | YELLOW |
|  | EI 15 | 1 | 1104 | I. L | 64 | BLACK |
| 17 | EREQL | 0 | "163 | MM | 63 | BLUE/GREEN |
|  | EREQL | 1 | " 112 | Pr | 62 | BLACK |
| 18 | ECONL | 0 | $\cdots 61$ | NN | 61 | GREEN/BLACK |
|  | ECONL | 1 | " 110 | RK | 60 | BLACK |
| 19 | EINL | 0 | " 11 | SS | 59 | WHITE/SEAC: |
|  | EINL | 1 | "11 $\quad 38$ | 111 | 58 | BLACK |
| 20 |  |  | "1) 57 | IT |  |  |
|  |  |  | " | V |  |  |

## EXTERN CHANNEL FROM CPU 2

| DRAWN | BY TS/cm1 |
| :--- | :--- |
| AFPROVED BY |  |
| UATE | $17 / 7 / 74$ |

Romarks
CPU 2

| Replocemont lor | Dale |
| :--- | :--- |
| Replaced by | Dalo |


| NS NORSK DATA－ ELEKTRONIKK |  | BUS SWITCH CHANNEL CONTROL |  |  |  | NORD-10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| + |  | 等 |  |  | $\cdots$ | $\begin{aligned} & \text { y } \\ & 00 \\ & \text { Why } \\ & \text { Ron } \\ & \text { C } 5 \end{aligned}$ |
| 1 |  |  | Bl：FG 95 |  |  |  |
|  |  |  | 1124 |  |  |  |
| 2 |  |  | 193 |  |  |  |
|  |  |  | $" 92$ |  |  |  |
| 3 |  |  | ＂ 91 |  |  |  |
|  |  |  | 110 |  |  |  |
| 4 |  | － | ＂ 89 |  |  |  |
|  |  | － | 11 88 |  |  |  |
| 5 |  |  | 11－82 |  |  |  |
|  |  |  | ＂ 86 |  |  |  |
| 6 |  |  | ＂－85 |  |  |  |
|  |  |  | ＂ |  |  |  |
| 7 | EDRYL | 0 | ＂ 83 |  |  | BERG 83 |
|  | EDRYL | 1 | ＂83 |  |  | $17 \quad 82$ |
| $\delta$ | EMCL | 0 | ＂ 81 |  |  | ＂ |
|  | EMCL | 1 | ＂－80 |  |  | ＂ |
| 9 | EGRANTL | 0 | ＂ 70 |  |  | ＂－79 |
|  | EGRANTL | 1 | ＂ 78 |  |  | ＂－78 |
| 10 | EIOXEL | 0 | $27$ |  |  | ＂ |
|  | EIO：EL | 1 | ＂－＿26 |  |  | ＂－76 |
| 11. | EIDENTL | 0 | 11175 |  |  | －1－75 |
|  | EIDENTL | 1 | ＂174 |  |  | ＂1－－74 |
| 12 | EI 10 L | 0 | 戒－23 |  |  | $11-73$ |
|  | EI 10 L | 1 | 7：－72 |  |  | ＂－7－72 |
| 13 | EI 11 L | 0 | 4 121 |  |  | ＂ |
|  | EI 11 | 1 | $\because \quad 70$ |  |  | ＂ 70 |
| 14 | $\text { EI } 12 \mathrm{~L}$ | 0 | $\because \quad 62$ |  |  | ＂－69 |
|  | EI 12 L | 1－1 | $\bar{c}$ |  |  | ＂ 1168 |
| 15 | EI 13 L | 0 | $\cdots \quad 67$ |  |  | ＂－67 |
|  | EI 13 L | 1 | ＂ 6.6 |  |  | ＂ 1 |
| 16 | EI 15 L | 0 | ＂ 6 |  |  | ＂ $11-65$ |
|  | EI 15 L | 1 | ＂ 6 |  |  | ＂ 6.4 |
| 17 | EREQL | 0 | 1163 | ＊ |  | ＂-63 |
|  | EREQL | 1. | $\because \quad 6 ?$ |  |  | ＂ 62 |
| 18 | ECONL | 0 | $11 \quad 61$ |  |  | 11 61 |
|  | ECONL | 1 | ＂ 60 |  |  | ＂ 7 |
| 19 | EINL | 0 | ＂ 39 |  |  | 1－5－59 |
|  | EINL | 1 | ＂ 58 |  |  | 1－58 |
| 20 |  |  | 11.57 |  |  |  |
|  |  |  | 1105 |  |  |  |
| 21 |  |  | $" \quad 55$ |  |  |  |
|  |  |  | ＂ 54 |  |  |  |

## BUS SWITCH CHANNEI」 1

| Drawin EY TM／eml | Remarks | CPU 1 <br> CPU CABINET | Repiazornentior | Das |
| :---: | :---: | :---: | :---: | :---: |
| APPROVED BY |  |  | Heplaced by | Duts |
| DATE 16／8／73 |  |  |  |  |

(


## EXTERN CHANNEL FROM CPU

| DRAWN BY_TS/eml | Romarks | CPU I <br> CPU CABINET | Replacemient lor Dato |
| :--- | :--- | :--- | :--- | :--- |
| APPROVEO BY |  | Replaced by | Dato |
| DAIE | $17 / 7 / 74$ |  |  |


| AIS NORSK DATA. ELEKTRONIKK |  | Tite | BUS SWITCH INPUT <br> DATA |  |  | Drawing no. NORD-IO |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\dot{z}$ |  |  |  | $\begin{aligned} & \text { 关 } \\ & \underset{\sim}{\sim} \\ & \underset{\sim}{\sim} \\ & \text { a } \\ & \text { BSD } 2 \end{aligned}$ | $\text { B } 19$ |  |
| 1 | ED 15 L | 0 | HFER 88 | $\lambda$ | BERG 95 | RED/BLACK |
|  | ED 15 L | 1 | ' 18 | ( | 94 | BLACK |
| 2 | ED 14 L | 0 | " 86 | 8 | 93 | BROWN/BLACK |
|  | ED 14 L | 1 | 87 | $1)$ | 92 | BLACK |
| 3 | ED 13 L | 0 | " 84 | r. | 91 | RED / BROWN |
|  | ED 13 L, | 1 | " 85 | 11 | 90 | BLACK |
| 4 | ED 12 | 0 | " 82 | F | 89 | BROWN |
|  | ED 12 L | 1 | " 83 | J | 88 | BLACK |
| 5 | ED $11 \quad \mathrm{~L}$ | 0 | " 80 | K | 87 | RED/CREEN |
|  | ED 11 L | 1 | " 81 | M | 86 | BLACK |
| 6 | ED 10 L | 0 | 78 | 1. | 85 | RED |
|  | ED 10 L | 1 | 7.9 | N | 84 | BLACK |
| 7 | ED 9 L | 0 | 76 | P | 83 | BLUE/BLACK |
|  | ED 9 L | 1 | 77 | S | 82 | BLACK |
| 8 | ED 8 L | 0 | " 74 | K | 81 | ORANGE |
|  | ED 8 L | 1 | " 75 | $\cdots$ | 80 | BLACK |
| 9 | ED 7 L | 0 | 72 | 11 | 79 | BLUE/BROWN |
|  | ED 7 L | 1 | 73 | W | 78 | BLACK |
| 10 | ED 6 L | 0 | 70 | V | 77 | YELLOW |
|  | ED 6 L | 1 | 71 | X | 76 | BLACK |
| 11 | ED 5 L | 0 | 68 | Y' | 75 | BLUE/CREEN |
|  | ED 5 L | 1 | " 69 | AA | 74 | BLACK |
| 12 | ED 4 L | 0 | " 66 | $\%$ | 73 | GREEN/BLACK |
|  | ED 4 L | 1 | 67 | HB | 72 | BLACK |
| 13 | ED 3 L | 0 | " 64 | C C | 71 | WHITELBLACK |
|  | ED 3 L | 1 | " 65 | EF | 70 | BLACK |
| 14 | ED 2 L | 0 | " 62 | 1) 1 | 69 | BLUE |
|  | ED 2 L | 1 | " 63 | FF | 68 | BLACK |
| 15 | ED 1 L | 0 | " 60 | 111 | 67 | WHITE/BROWN |
|  | ED 1 L | 1 | " 61 | KK | 66 | B LACK |
| 16 | ED Q L | 0 | $1{ }^{1} 58$ | J. ${ }^{\text {d }}$ | 65 | VIOLET_ |
|  | ED 0 L | 1 | 59 | 1.1. | 64 | BLACK |
| 17 |  |  | " | M: 1 | 63 |  |
|  |  |  | " | $\mu \mathrm{l}$ | 62 |  |
| 18 |  |  | " | N.N | 61 |  |
|  |  |  | " | KK | 60 |  |
| 19 |  |  | " | SS |  |  |
|  |  |  | " | 110 |  |  |
| 20 |  |  | " | TI |  |  |
|  |  |  | " | VV |  |  |

## EXTERN CHANNEL FROM CPU 2

| AIS NORSK DATA－ ELEKTRONIKK |  | BƯS SWTTCH CHANAELDATA． |  |  | Drowing no．NORD-10 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| －${ }^{-1}$ | $H$ $\vdots$ $\vdots$ $H$ $\omega$ |  |  |  | $\begin{aligned} & \dot{2} \\ & 0 \\ & 0 \\ & \ddot{0} \\ & \stackrel{y}{0} \\ & \text { c } \\ & \text { c } \end{aligned}$ |  |
|  | ED 15 L | 0 | B1：NG 9.5 |  | 1／10 RACK 4 | BERG 75 |
| 1 | ED 15 L． | 1 | ＂ 94 |  |  | ＂ 74 |
|  | ED 14 L | 0 | ＂ 93 |  |  | ＂ 17 |
| 2 | ED 14. | 1 | ＂－92 |  | 1 | 1－72 |
|  | ED 13 L | 0 | ＂ 11 |  | ＂1－7r | 11－71 |
| 3 | ED 13 L | 1 | ＂$\quad 90$. |  | ＂－0 | 1170 |
|  | ED 12 L | 0 | ＂-89 |  | ＂－1 | 11－ 69 |
| 4 | ED 12 L | 1 | ＂ 88 |  |  | II－68＿ |
|  | ED＿12 | 0 | ＂1－87 |  | ILORACK 3 ． | BERG－75－ |
| 5 | ED $11 . L$ | 1 | ＂－． 86 |  |  | ＂ 11.74 |
|  | ED 10 I | 0 | 11.85 |  | ＂ | II－73 |
| $t$ | E1） 10 L | 1 | ＂1－84 |  | ＂ | ＂ |
|  | FD－ 2 | 0 | －1－ 83 |  | II | II－－．．． 71 |
| 7 | ED 9 L | 1 | ＂ 11 |  | 110 | － 1 |
|  | ED 8 －L | 0 | ＂$\quad 81$ |  | ＂ | 11－69 |
| 8 | ED 8 L | 1 | ＂1－80 |  | ＂ | ＂ 1 |
|  | ED 7 L | 0. | ＂－79 |  | I／ORACK 21 | BERG 75 |
| 9 | ED） 7 L | 1 | －11－78 |  | ＂ | ＂1－74 |
|  | ED 6 L | 0 | ＂－77 |  | ＂－－ | ＂－73 |
| 10 | ED 6 L | 1 | －1176 |  | ＂1－N－3 | －11－－－72 |
|  | ED 5 L | 0 | 乙＂ 75 |  | ＂－0－3 | T－ 71 |
| 11 | ED 5 L | 1 | 号 74 |  | ii | ＂1－ 70 |
|  | ED 4 L | 0 | O－11－73 |  | ＂ | $\pi \cdots$ |
| 12 | ED 4 L | 1 | ＂－－72 |  | ＂ | 68 |
|  | ED 3 | $0^{-}$ | 员－11 |  | I／O RACK 1 | BERG 75 |
| 13 | ED 3 L | 1 | $\cdots .70$ |  | －10－ | －$=7-74$ |
|  | ED 2 L | 0 | ．1－69 |  | i－ | ＂－－73 |
| 14 | E） 21 | 1 | ． 108 |  | ＂－ | ＂$-1-72$ |
|  | ED 1 L | 0 | ＂ 67 |  | ＂－r］ | i＂－71 |
| 15 | E1） 1 L | 1 | ＂ |  | $\because-0.5$ | ＂－70 |
|  | ED $0-L$ | 0 | ＂1－65 |  |  | ＂－－－－69 |
| 16 | ED 0 L | 1 | 11－64 |  |  | ＂ 68 |
|  |  |  | ＂－63 |  |  |  |
| 17 |  |  | $\because 62$ |  |  |  |
|  |  |  | ＂ 61 |  |  |  |
| 18 |  |  | ＂－ 60 |  |  |  |
|  |  |  | ＂ |  |  |  |
| 19 |  |  | ＂ |  |  |  |
|  |  |  | ＂ |  |  |  |
| 20 | － |  | ＂ |  |  |  |
|  |  |  | $\because$ |  |  |  |
| 21 |  |  | 1 |  |  |  |

BUS SWITCH GHANNEL 1




$$
\begin{aligned}
& \text { 放10-2.10-3.10-4.10-5.10-6.10-710-8.10 } \\
& 317.34-10.34-19.34-20.34-21.34-22.34-23.34-24.3 \\
& \text { B/7. } 39 \\
& \text { Bッフ. } \because 2 \\
& \beta, \pi \in \\
& \text { 1, 7 50 } \\
& \begin{array}{rrrr}
5 / 3.06-B 14.07 & B / 4.06-B 15.07 & 3 / 5.06-B / 6.0 \\
13.08-14.07 & 14.08-15.09 & 15.08-16.1 \\
13.10=14.113 & 14.10-15.11 & 15.10-16.1 \\
13.12-14.14 & 14.12-15.13 & 15.12-16.1 \\
13.14-14.14 & 14.10-15.14 & 15.14-16.1 \\
13.15=14.15 & 14.19 & 15 & 15.15-16.1
\end{array} \\
& \begin{array}{r}
13.28= \\
13.29= \\
13.30= \\
13.31=
\end{array} \\
& 14.29 \\
& 14.29 \\
& 14.3 \\
& \text { 14.31 } \\
& \begin{array}{r}
13.32-14.32 \\
1333
\end{array} \\
& \begin{array}{l}
13.33-14.33 \\
13.34-14.34
\end{array} \\
& 13.35-14.35 \\
& \begin{array}{l}
13.38-14.38 \\
13.39-14.39
\end{array} \\
& \begin{array}{l}
13.42-14.42 \\
13.43-14.43
\end{array} \\
& \begin{array}{l}
13.44=14.44 \\
13.45=14.45
\end{array} \\
& \begin{array}{l}
13.46-14.46 \\
13.47-14.47
\end{array} \\
& 13.50-14.5 x \\
& 13.51-14.51 \\
& \begin{array}{l}
13.54-14.54 \\
13.55-14.55 \\
13.56-21.06 \\
13.41=21.57 \\
13.93=21.59
\end{array}
\end{aligned}
$$

$$
\begin{aligned}
& \text { B16.56-B24.06 } \\
& 16.91 \text { - 24.57 } \\
& 16.93-24.59 \\
& \begin{array}{l}
3159-39.89 \\
33.59-311.99
\end{array} \\
& \text { B5.57-3/3.91 } \\
& 35.59-B / 3.89 \\
& B 6.57-B / 4.91 \\
& \text { BG. 59 - B/4.39 } \\
& B 7.57-B / 5.91 \\
& B 7.58-B / 5.89 \\
& B 8.57-B / 6.91 \\
& \text { B8.59 - B16.89 } \\
& \text { 81.04-2.04-3.04-4.04-5.04-6.04-7.04-8.04 } \\
& \text { B/7.04-18.04-19.04-20.04-21.04-22.04-23.04-24.04 } \\
& .317 .10-10.10-1310-20.10-21.10-22.10-23.10-24.10 \\
& \text { B17.11-18.11-19.11-20.11-21.11-22.11-23.11-24.11 }
\end{aligned}
$$

Bus Sariter Tiwee Pos.

$$
\begin{array}{rr}
33.50 & B / 3.92 \\
30.49 & -3.91 \\
30.48 & -3 / 4.92 \\
30.47 & -14.91 \\
30.46 & -315.92 \\
30.45 & -3.91 \\
30.44 & B / 6.92 \\
30.43 &
\end{array}
$$



$$
\left.\begin{array}{rlrl}
A B M & A D 14-A 020 & (B A 1
\end{array}\right)
$$

$$
\begin{aligned}
& \text { IF } 45 \text { - } A 11.25 \text { (B7 10) }
\end{aligned}
$$



- we want bits of the future

