

SYDTRUG NEWS

SYDNEY TRS-80 USERS GROUP NEWSLETTER

Volume.4 Issue.5 January — 1984

IN THIS ISSUE

First of all let me wish all fellow members a happy and prosperous New Year, and may we all benefit from the companionship which is part and parcel of our group.

This month's issue is a bit longer than previous issues mainly due to the tour of Ted Romer's Bulletin Board (since named the OMEN). I hope that those of you who are or are about to be, modem users, will find this useful (as well as reducing the time spent touring the system for new users). The excellent Help files (as well as the System Software) were written by Peter McGrath.

Ted has written a couple of short articles pertaining to the Model 4, the first being a few of his first impressions of the computer, and the second a short program to allow the Model 4 to run at 4 MHz when in Model III mode.

Phill Walsh has also submitted a couple of articles. The first consists of a number of puzzles on a short 'Whodunit' mystery theme while the second article is in the form of a Poem titled The Computer Operator (is this profetic). I found both articles very interesting and I hope that you do also.

Peter Wignell has given those of us who use SuperSCRIPSIT, the details of how to convert it to run under the LDOS operating system.

Cassette corner appears in an abbreviated form this month (sorry Geza) but space limitations meant that the actual constructional details of Geza's modifications to the CTR-80 have been held over until next issue. The full circuit details are presented however for those who can manage without further details.

From next month's issue until job commitments are fulfilled I will be handing over the reins of Editing this Newsletter to Denis Pagett. Dave Jordan will handle the publication and Keith Black will take care of the distribution.

Your Editor,
Gary Bryce.

MEETING DATES

The dates for the upcoming monthly meetings for January and February appear below, all meetings commence at approximately 1100 PM, at the rear of Pattersons Florist, Chegwyn St, Botany.

<u>January</u>			<u>February</u>
14th	--	Monthly General Meeting	-- 11th
21st	--	Special Interest Group	-- 18th

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MODEL 4 REVEIW

by Ted Romer

The Model 4 is one of the newest machines that Tandy have produced. The features are quite impressive : 64K standard , 128K option, 80 x 24 screen as well as the 64 x 16 for the model III mode. The operating system is call TRSDOS 6.00.00 which is a ram based LDOS.

At first look the machine looks a winner but I found the following things. The only language supported at the moment is BASIC, after BASIC is loaded there is only 28k left for programs in a 64k system and the BASIC wouldn't use the other 64K in a 128K system. The BASIC look and feels like standard TRSDOS 2.3 BASIC with no special key functions like first line ,last line edit current line, etc.

The command CMD is missing (replaced by SYSTEM !Ed), no graphic commands, the system is double density but double sided drives are not supported. The most serious omission is any techincal support for machine language programs (Tech Manual said to be available end of January), the system uses a structure similar to CPM where to access a function

To print a message to the screen

```
LD    HL,AREA      ; point HL to start of message
LD    A,40          ; code to print to screen
RST   40            ; do it
```

this information is missing from the manual.

P.S. as time permits I'll let you know of some of the other supprises in TRSDOS and some CPM +.

TED ROMER'S BULLETIN BOARD

by Gary Bryce

Having recently completed construction of one of the AVTEK Multi Modem kits, I was ready to investigate the new world of modem communications. This meant accessing the Bulletin Boards which have been setup to provide a service and a point of contact for users of all descriptions.

Our own fellow club member Ted Romer has setup what is as far as I know the first TRS-80 based Bulletin Board in Australia, so after connecting up the system, I rang Ted's board (498-2495) and took a tour through the system. The following is a selection of some of the HELP files available on the system.

REMOTE NEWDOS/80 QUICK COMMAND SUMMARY

To see what's on a disk.	DIR
To leave the RDOS system.	BYE
To see if the SYSOP is around.	CHAT
To read or leave messages.	BB
To enter the communications program.	XFER
To look at text files.	LIST
To get help on NEWDOS/80.	HELP NEWDOS
To get help on the message subsystem.	HELP BB
To get some general system information.	HELP HELP
To see old messages about puzzles programs etc.	HELP PROGINFO
To get info about some programs on this system.	HELP SOFTWARE

The HELP NEWDOS facility is provided for those who are unfamiliar with the NEWDOS/80 operating system and so I went on to the HELP BB sub-system.

Bulletin Board

The Bulletin Board was written in Assembly Language by Peter McGrath who also wrote the Help files available on the system.

BB Help File Selections are,

- | | |
|--------------------------------|-------------------------------|
| 1. Introduction | 2. Mini-help |
| 3. Passwords | 4. Personal messages |
| 5. The ";" parameter connector | 6. The + option on "R"etrieve |
| 7. The Expert option | 8. Message numbering |
| 9. Messages for you | 10. Acknowledging messages |
| 11. Editing messages | |

Introduction

The bulletin board's program for messages is called BB/CMD. In using the bulletin board, please read and then delete any messages addressed to you so that more messages can be left on the system. (Hint - read your mail with either your printer turned on and echoing, or save the session as a disk file.)

This system is a "split" system with the message subsystem distinct from the entry or login system. This is done to discourage users from thinking that this is primarily a message exchange service, indeed it is not.

Mini-Help

The bulletin board has a mini-help feature built in which is activated by typing either a "?" or a non recognised command when the "Function" prompt appears. The mini-help is given in the following format.

- | | |
|-------------------------|----------------------|
| B => Bye -logoff system | C => Current message |
| D => Exit to RDOS | E => Enter messages |
| K => Kill messages | N => Next message |
| P => Previous message | Q => Quick summary |
| R => Retrieve messages | S => Scan messages |
| T => Toggle expert mode | X => Exit to RDOS |

Passwords

The "Enter" message option prompts for a password after the subject. The password you enter here will be requested from you when you come to "Kill" the message.

You should use passwords to stop someone from logging in with your name and killing your messages. Also you should keep a record of the passwords that you use or alternatively use something that is well known to you from memory but unlikely to be known or mean anything to someone else, i.e. your car rego number, bank account number or whatever.

If you do use a password remember even the intended recipient will not be able to kill the message unless they know the password. Note that the SYSOP can kill messages without having to know the password.

Personal messages

On a public system such as this there is nothing that is really secure (so don't leave truly secret information on the system) but there are ways of ensuring some degree of privacy for messages to individuals.

When asked for a password (see previous section) if you enter a "*" before your password, i.e. *SECRET, the message will be classed as a personal message and will only be visible to the receiver and the sender (and the SYSOP). A single "*" makes the message personal but not password protected. The subject in a personal messages is surrounded by brackets, i.e. (NEW SOFTWARE). If you use the "S" or "Q" options to scan the waiting messages, any personal messages to you or from you will appear with the subject surrounded by brackets.

The ";" Parameter connector

The ";" connector allows the user to include a parameter on the initial command line. If the requested command does not require a parameter then the extraneous characters will be ignored. Provided the parameter fetched meets the requirements of the input required by the command then it will be processed.

This means that a command such as "r;23" will work fine as BB first expected a "letter command" and so accepted an "R" then expected a number. It would then display message number 23.

Multiple commands are not allowed and each time the function prompt appears you will be asked for another command. For example the command "R;35;R;45" would not work as BB would accept the "R" and then a number and would retrieve message 35. It would then ignore the rest of the command line & return to the function prompt.

The + and - options on "R"etrieve

The "+" and "-" options for the "R"etrieve command should be given as "n+" or "n-" where n is the message number to start at. Then all following/preceeding messages for you will be displayed without a pause between messages.

You can also give it in a composite commands such as "R;20+" or "R;60-".

Expert option

Once you get familiar with the system you can suppress the prompt line and some of the information messages with the "T" option.

Also to enable the editing features to become operational after the message has been entered, the expert mode must have been toggled to the ON position.

Message Numbering

Periodically the SYSOP will purge the message files and may renumber them at that time. Do not expect that any message will always retain the same number. Missing numbers may contain deleted messages or personal messages.

It is not worth your while to try and snoop around in the message system.

Messages for You

When you log into the system and before entering the MENU, you will be told if there are any unread messages waiting for you. This information will be repeated when you enter the BB message sub-system.

The information presented is the message number(s) that are addressed specifically to you. It is not the number of messages for you.

i.e. "12" means message number 12

Acknowledging messages

The convention for acknowledging messages is to kill them after reading them. If you cannot kill the message because it is protected by an unknown password then leave a message for the sender so he can kill the message.

Editing messages

The 'Bulletin Board' program has recently been upgraded to allow messages (in the 'E' function) to be edited by the user before they are saved to diskette.

The editing function requires the user to have toggled the EXPERT user mode prior to entering the 'E' function whilst viewing the BB function mode viz!

Function B,C,D,E,K,N,P,Q,R,S,T,X or "?" if not known!

Once the message has been entered the user will be asked if they wish to <R>eview, <E>dit or <S>ave the message. The REVIEW option displays the text entered and precedes each line with a number. When you know which line number you wish to EDIT type "E;<linenumber>" or just "E" and BBoard will prompt you for the number of the line to edit.

The following summarises editing commands.

ENTER key, (cr)

Typing ENTER whilst in the edit mode causes all changes to be saved & you are returned to the <R>, <E> or <S> prompt.

nSPACE-BAR

Typing a space causes the cursor to be advanced to the next character on the line (no changes made). To move over more than one character, type the desired number of spaces first, & then the space-bar.

nBACK-SPACE

Moves the cursor to the left by 'n' spaces. If 'n' is not given the cursor is retarded one position. When the cursor moves left, the characters in it's path are erased from the vdu, BUT THEY ARE NOT DELETED FROM THE LINE.

SHIFT UP-ARROW (esc)

Typing SHIFT & UP-ARROW together effects an escape from the insert commands listed below (I,H,X). After escaping from the command you are still in the edit mode & the cursor position will be the same.

I (insert)

Allows characters to be inserted before the current cursor position. Type SHIFT & UP-ARROW when finished inserting to escape INSERT but remain in edit mode or ENTER to return to the prompt.

X (extend)

Displays the rest of the line, and moves cursor to the end of the line and enters the insert mode.

H (hack & insert)

All characters after the cursor are deleted and insert mode is selected.

A (cancel & restart)

Cancels all changes made & returns cursor to start of line.

Q (cancel & quit)

Cancels all changes made & returns to prompt.

E (save changes & exit)

Saves any changes made & returns to prompt, (same as pressing ENTER).

nC (change)

Change 'n' characters starting at the current cursor position once 'n' characters have been entered you are returned to the edit mode. If 'n' is not entered then 1 character is changed.

nD (delete)

Deletes 'n' characters from the cursor position to the right. The deleted characters are displayed between a pair of '!'s. If 'n' is not specified then 1 character is deleted.

nSc (search)

Search for the 'nth' occurrence of character 'c' & move the cursor to that position. If character 'c' is not found then the cursor is positioned at the end of the line. If 'n' is't specified then search for the 1st occurrence of 'c'.

HELP HELP

Bulletin Board HELP file.

BYE

Please leave this system via the BYE command from the Remote NEWDOS/80 prompt or via the "B" command in either BB or XFER. Bye will ask you if you wish to leave a comment for the Sysop. If you wish to leave a comment remember that it is restricted to one (1) line of 64 characters (including the final <cr>).

HELP/CMD

Help has been added to this system to allow new users and users unfamiliar with the NEWDOS/80 operating system to find their way around. All help files on this system have an extension of "/HLP" and may be accessed by typing :

HELP subject

e.g. NEWDOS/HLP can be accessed by typing, HELP NEWDOS

MENU/CMD

Allows access to some of the more popular features by the entry of a single keystroke. Control is automatically passed to MENU after the initial log on dialog. MENU can also be activated by typing MENU from the Remote NEWDOS/80 command prompt.

STATS/CMD

Will give you a size and protection check of any specific file required. The display is similar to that used in the NEWDOS/80 directory entry when the "A" option is specified.

(a) Command format is: STATS FILENAME/EXT

(b) The program will return to "Remote Newdos80 Ready" after the stats have been displayed.

STATUS

Typing STATUS within RDOS will display some of the history records maintained by RDOS (characters sent and received etc) of your progress within the system.

XFER/CMD

Is the file transfer utility program to upload and download files from your computer to this system and vice-versa. These files may be ASCII text files or programs (either in BASIC, Pascal or whatever) the only restriction on uploading files is that /CMD files will be changed to /COM files (thus non-executable).

You are welcome to leave any file you feel may assist other users in their programming efforts (Z80 assembly language, BASIC, Pascal, COBOL, "C" languages are all supported on the TRS-80). Please do NOT leave copyright software on this bulletin board -- it can only get you and us into trouble, thanks!

+++ NOTES +++

1. Any /CMD files on the system may be executed, such as ANIMAL/CMD but not all files may be transferred to your system as some may well be password protected. Also transferred /CMD files cannot be run until Sysop allows it. BASIC is not on the system as adequate protection for the host system cannot be assured at this time.
2. Comments, advice and contributions re any aspect of the BB would be welcomed and appreciated.
3. Articles for the Sydney TRS-80 Users Group (SYDTRUG) magazines may also be left on the system for the editor to collect. Your suggestions and constructive criticism may be left on the bulletin board addressed to GARY BRYCE.
4. Current hours of operation are -

24 hours a day until 23rd January
and then back to
Mon to Fri 4.30 p.m. to 9.00 a.m.
Fri to Mon 3.00 p.m. to 9.00 a.m.

5. The aim of the Bulletin Board is to provide interested microcomputer users and members of the Sydtrug users group a facility for the interchange of ideas and discussion to promote a maximum use of our computers.

6. If you find a bug please do not kill it, but report it to the Sysop when you leave the system via the normal 64 character message imbeded within the BYE command from "Remote Newdos/80 Ready",

by Phill Walsh

I hope these short 'Whodunit' mysteries provide the reader with a challenge and some enjoyment. The general method for solving most of the future puzzlers is as follows:- The question posed at the end of each puzzler states a condition that must be met by the solution. The clues will stipulate conditions, either explicit or implied, involving the various 'subjects'. What you must do, is discover all the conditions, and then determine which one satisfies the condition stated in the poser question.

When Peter, Andrew and Ted go shopping, each orders either diskettes or printer paper.

- (a) If Peter orders diskettes, Andrew orders printer paper.
(b) Either Peter or Ted orders diskettes, but not both.
(c) Andrew and Ted do not both order printer paper.

POSER: Who could have ordered diskettes yesterday, printer paper today?

The Computer club consists of 16 Model III users and Model I users, including me. The following facts apply to the club members, whether you include me or not does not make any difference. The Club consists of -

- (a) More Model I users than Model III users.
(b) More male Model III users than male Model I users.
(c) More male Model I users than female Model I users.
(d) At least one female Model III user.

POSER: What is the sex and what Computer does the **SPEAKER** use.

Three people share a motel room, sharing the \$30 fee between them (that's \$10 each!). Later, the manager discovers that they have been overcharged \$5, so he sends the porter with a \$5 refund. The porter pockets \$2, and gives the three people \$1 each.

The state of play! 3 people @ \$9 = \$27
porter has \$2 = \$29

Where has that \$1 gone?

Three people share a motel room, splitting the \$30 fee between them (that's \$10 each!). Later, the manager discovers that they have been overcharged \$10 (the room only cost \$20 per night!). He sends the porter with a \$10 refund. The porter pockets \$7 and gives the people \$1 each.

The state of play!

3 people @ \$9 =	\$27
porter has \$7 =	\$34

Where has the \$4 come from?

by Ted Romer.

- ```

1 REM Set Clock Frequency to 4MHz on Model 4 when in Model III mode.
2 CK = PEEK (&H4210) OR &H40
3 OUT &HEC,CK : POKE &H4210,CK : END

```

### THE COMPUTER OPERATOR.

Feet winging, heart singing, he trots through the door  
So happy to be midst the clatter and roar.  
Computer and printer, the job as a whole  
Is heaven to him, provides food for his soul.

No other, his mother, his kid nor his wife,  
Receives such devotion, gives meaning to life.  
To enter the centre is life's greatest joy,  
Providing a pleasure that surely wont cloy.

Pulsating, awaiting his gentle commands  
The rig seems to recognise capable hands.  
Confident, competent, he flits here and there  
Getting things ready to go on the air.

Drives counted, tapes mounted, all ready to go  
He pauses a moment, his features aglow,  
Serenely, routinely, he pushes the start  
And it's just about then that things fly apart.

One tape, then another, gives out whistles and screams,  
The printer goes mad, spewing paper in reams.  
The lights on the console give a fireworks display  
And in a momentary panic his feet turn to clay.  
His heart begins pounding and surely must burst  
As the whole crazy rig acts like something accursed.  
For what seems an eternity but is only a flash  
His feet feel bogged down in a glutinous mass.  
He's unable to move and unable to speak  
As the computer goes dead with a pitiful squeak.

Head ringing, eyes stinging he goes for the switch,  
Knocking down power on his beautiful witch.  
Benumbed, feeling stunned, not yet able to guess,  
The calamitous state of this horrible mess.

Traumatic, dramatic, the shock is profound.  
For fully a minute he utters no sound,  
Then waking, hands shaking, his temper gives way  
And the curses start flying (I'm sorry to say).

He curses the mainframe, the tape drives as well,  
He curses the card read, consigns it to hell.  
He curses the printer, he curses the punch,  
He curses the console, and then on a hunch  
He curses the programme, and still quite untiring  
He curses the diodes, transistors and wiring.  
He curses the present, he curses the future,  
He curses the first day he saw a computer,  
At last, quite exhausted, he falls to the floor  
Unable to utter one single curse more.

Bedevelled, dishevelled, his face chalky white,  
Eyes bloodshot, tongue lolling, a pitiful sight.  
It's all over, all over, the battle is done.  
Twixt man and machine the computer has won.

Muttering, stuttering, completely insane  
He mumbles this warning again and again -  
Idiots, idiots can't anyone see  
That anytime now you may end up like me.

---

### CONVERTING SUPERSCRIPSIT TO LDOS

by Peter Wignell.

The TRS-80 Model III version of Superscrpsit can now be easily patched to operate on the Model-III version of LDOS. The latest version of Superscrpsit (version 1.2.01) includes a Job Control Language (JCL) file called HARDDISK/JCL which contains all the patches to allow Superscrpsit to operate under the LDOS system.

The procedure to transfer Superscrpsit to LDOS and apply the patches is as follows:

- (1) Make up a LDOS system disk which includes SYS files 0, 1, 2, 3, 4, 6, 7, 8, 10, 11 and 12. Also include the FORMAT/CMD, PATCH/CMD, CONV/CMD and BACKUP/CMD utilities.  
Use the following syntax: "BACKUP !0 !1 (Q=Y)"
- (2) Place this LDOS system disk in drive!0 and a BACKUP COPY of TRSDOS 1.3 Superscrpsit version 1.02.1 in drive!1.
- (3) Under LDOS perform a CONV !1 !0 transferring only those files pertaining to Superscrpsit. Transfer SCRIPSIT/CMD, S/CTL, SYSTEM/CTL, HELP/CTL, ERRORS/CTL, all SCRxx/CTL files and the required printer driver files (ie. LP8/CTL, DW2/CTL etc).

Do NOT transfer the TRSDOS utilities MEMTEST/CMD, HERZ50/CMD, BASIC/CMD, CONVERT/CMD, XFERSYS/CMD or LPC/CMD.



(4) Remove the TRSDOS Superscript disk from drive 1.

(5) Apply the patches to the Superscript files by typing "DO=HARDDISK/JCL". The screen will display the file patches as they are applied. When the patches have been completed the screen should display the message:

"Patch(s) successfully installed"

"Job done."

After the file patches have been applied you may purge SYS 11 and the HARDDISK/JCL files from the LDOS Superscript disk if you require more space on the disk.

Backups of the new LDOS Superscript disk should be made immediately the conversion has been completed.

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### EXTRAORDINARY GENERAL MEETING

As was detailed in the December Newsletter, an extraordinary general meeting has been called for the 11th of February for the purpose of electing members to the Club Committee. Nominations for the following positions have been received :-

|                  |                 |
|------------------|-----------------|
| President -----  | Nil             |
| Treasurer -----  | Bill Stephenson |
| Secretary -----  | Dan Lawrence    |
| -----            | Jim Wittaker    |
| Committee Member | Mike Cooper     |
|                  | Mike Harris     |
|                  | Denis Pagett    |
|                  | Peter Wignell   |

As no nominations have been received for the position of President, they will be received from the floor of the meeting (as will any further nominations for other positions).

Further to the above a motion to change the Club Constitution paragraph (4), section (f), will be put to the meeting. The existing wording follows:-

(f) The members shall elect a President, Secretary, Treasurer, and two committee members at each Annual General Meeting. The committee shall have the power to co-opt whomsoever it requires for particular tasks within the aims of the club.

The proposed wording of the section is as follows:-

(f) The members shall elect a President, Vice President, Secretary, Treasurer, and one committee member at each Annual General Meeting. The committee shall have the power to co-opt whomsoever it requires for particular tasks within the aims of the club.

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### FOR SALE

Disk Drive - 40 track TEAC - with power supply in original TANDY case.-- \$250 o.n.o.  
contact - Geza Dujmovich (047-74-1685)

Photocopier - Nashua - Wet transfer process - (plenty paper) --- Best Offer.  
contact - Mick Rowney (666-4716)

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## Cassette Corner

by Geza Dujmovich.

Following on from last month I will describe the modifications required to implement the visual and audible monitoring of cassette - computer - cassette data flow, as applicable to the CTR-80 and CTR-80(A) cassette player/recorder.

The Level meter part of the project is relatively easy as it is not switched, but permanently across the cassette amp output. The circuit below is the relevant portion reproduced from the CTR-80.

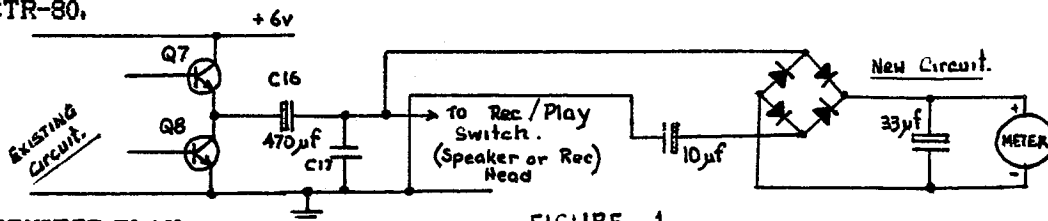


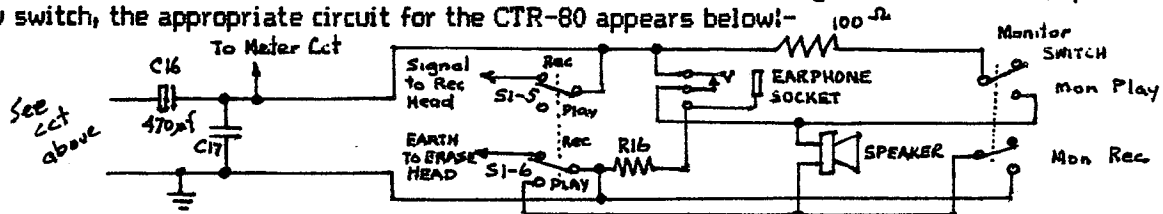
FIGURE .1.

### MONITOR PLAY

The reason the signal cannot be heard as it goes from the player to the computer is because the earphone plug operates a switch in the socket which cuts off the speaker. Just shorting out this switch is not suitable, as the signal would be degraded and the volume too loud. The solution is to bridge the switch with a 100 ohm resistor which is switched by one pole of a two position two pole switch, the other pole being used to switch in the ability to monitor the recorded signal.

### MONITOR RECORD

The recorded signal cannot normally be heard due to the an internal switch which cuts off the earth to the speaker (as well as the reason above). This switch is bridged with the second pole of the new switch, the appropriate circuit for the CTR-80 appears below:-



To get sound effects via the recorder all that is required is to press down the record button, throw the Monitor switch and remove the earphone plug (for increased volume).

### REMOTE OVERRIDE

This is the simplest of the three mods as all that is required is one switch to apply a short circuit across the Remote socket which is normally opened by the remote plug and the contacts of the cassette relay in the computer.

The simplest way is to run two wires straight from the socket to a switch that short circuits the contacts when thrown.

### HARDWARE

The actual hardware part of the mod I will leave to the individual, but I found that if the meter is placed in the upper righthand corner of the deck there is just enough room for it and the rectifier bridge plus the two capacitors soldered to the back of the meter, without having to hack into the battery compartment. The switches can be mounted on the left side just past the input sockets, but the remote override is better closer to the control levers (there is just enough room under the nameplate area in front of the levers).

### PARTS

- Edge Level meter - (Dick Smith cat no. Q-2110)
- 1 x 33 uF, 10v capacitor
- 1 x 10 uF, 10v capacitor
- 4 x signal diodes, 1 x 100 ohm resistor
- 2 x switches (one single, one double pole)