# Commodore

# The Transactor

You may recall last month that Chapters 1 through 7 were
included with the Nov./Dec. issue and Chapters 8 through the
appendices were to be included with this issue.  Well, by now
you probably realize that what you received is the entire
PET User Manual.  This month, we are enclosing with each
"TRANSACTOR" a copy of the User Port Cookbook.

Briefly, it outlines the operation of the User Port and will
help those interested interfacers get on their feet.  I don't
know who wrote the Cookbook, so if anyone out there knows the
author's name please contact me so I may credit him in the
next bulletin. - Karl J.

"COMPUTERS-FOR-EVERYONE" Courses

Human Computing Resources (HCR), a Toronto based corporation looking forward to expansion in greater Canadian cities, is offering a series of courses on computers. Presently, there are four but HCR is planning more in the future. Information is available on all of the courses and can be obtained from Mary Anne Carswell who has forward to me a brief outline for the "TRANSACTOR"

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January, 1978

PRESS RELEASE

**Human Computing Resources Corporation** 10 St. Mary Street, Toronto, Ontario, Canada M4Y 1P9

416-922-1937

COMPUTER COURSES FOR EVERYONE

Human Computing Resources Corporation announces a series of courses on computers.

The courses were created in response to the growing need for an objective, non sales oriented, viewpoint on how to evaluate personal computers, microcomputers and minicomputers. They will be attractive to people from many walks of life -- business people, professionals, artists, enthusiastic new users -- anyone who has imagined that a computer could make life easier. They will be doubly attractive to people who have researched the computer market and find they lack the expertise to choose one system over another.

Instructors are skilled educators, business people and creative computer professionals. They have had broad experience with all types of computers and computer applications.

Planned for the immediate future are:

        Introduction to Personal Computers (January and March)
        Introductory Programming in BASIC (January and March)
        Making Computer Music (February 17)
        How to Buy a Computer for Small Business (February 28)

In the works are courses on microprocessors, electronic troubleshooting, programming in PASCAL, computer graphics, word processing, computers in the law office, computers in the medical office, and computer-aided architectural design.

All courses will be held on the premises of HCR at 10 St. Mary Street, Suite 401, Toronto (near Yonge and Bloor), with the exception of the small business course, which will be held at the Bond Place Hotel, 65 Dundas Street East (just east of Yonge), Toronto M5B 2G8, (416)362-6061.

Fees for all courses are income tax deductible.

HCR was formed three years ago, to provide individuals, industries and government with cost-effective and responsive computer systems. HCR has watched developments in the personal computer industry with great interest, particularly because of its conviction that computer use needs to be demystified and humanized.

For more information, contact Mary Anne Carswell at 922-1937.

## T.P.U.G. TAPE LIBRARY

I recently met with Lyman Duggan of the Toronto PET Users Group and discussed the possibility of the dealers offering "The program copying arrangement" instead of Commodore. We felt this would give better exposure to "the programs" and make the library more accessible.

The Club plans to produce C-60's with a number of the more popular programs and distribute them (at cost) to any interested dealer(s) who would, in turn, offer them to customers at no charge. However, the idea is still under development. More details will be in the next "TRANSACTOR". Anyone with enquiries can call me at (416)499-4292.

INTERFACERS....

This month I received a letter from Andrew Hwang of Concordia
Designs in Toronto.  Andrew has successfully interfaced a PET
to an X-Y Plotter.  Excellent!  A copy of his response follows.
Thank you Andrew.

If anyone else has gizmos or gadgets interfaced to their PETs,
be it practical or unusual, write in and tell us about it!
A brief note is sufficient (such as Andrew's), and businessess...
the "TRANSACTOR" is sent to over 500 subscribers.
Get the hint?

# CONCORDIA DESIGNS

INNOVATIVE

CUSTOM DESIGN

SPECIALISTS

INTERFACING DIVISION

P.O.Box 219, Station D, Scarborough, Ontario, Canada.  M1R 5B7

CPU Club Members

c/o Commodore Business Machines Ltd.
3370 Pharmacy Ave., Agincourt,
ONTARIO.     M1W 2K4                          13 Dec.1978

               RE:  Full Graphical Plotting Capability
                    with the PET and a Digital Plotter

Dear Fellow CPU Members:

          We have succeeded in interfacing the PET with a
Digital Plotter made by Houston Instruments.  Full hard-copy
graphs of data or functions can now be easily plotted with pen
accuracy of up to 0.005 inches.  Softwares are also available
to issue plotting commands in simple basic steps.  Anyone wishing
more information may write to:  Concordia Designs, Interfacing Div.,
P.O.Box 219, Station D, Scarborough, Ontario, Canada.  M1R 5B7.

                         Faithfully,

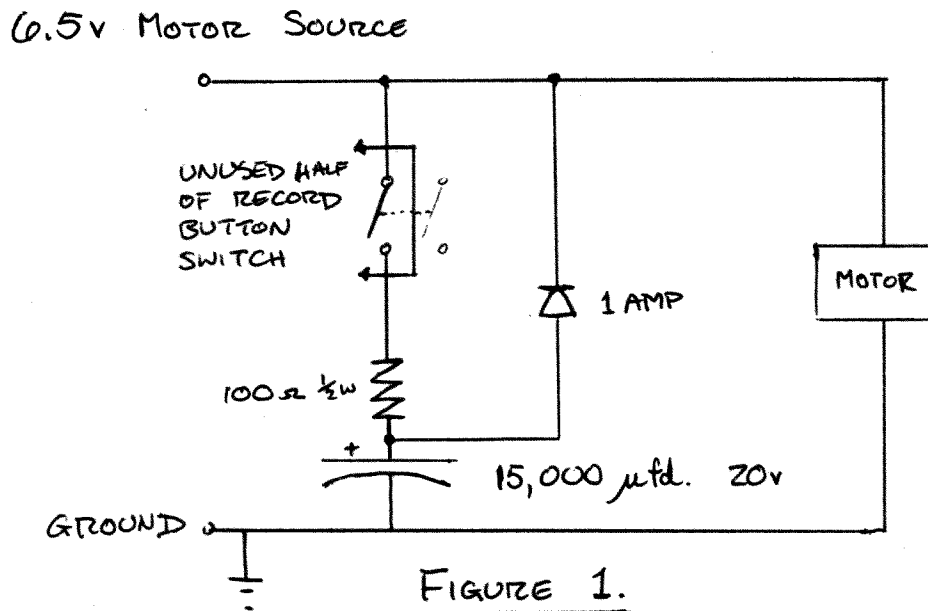                         Mr. Andrew Hwang, M.Sc.
                         PET User Club Member #65

HARDWARE FIX


Most PET Users involved with data files are aware of the problem
concerning file reads.  That is after a block READ the tape motor
does not stop instantaneiously and tends to roll the tape past
the beginning of the next block resulting in 'LOST DATA'.
Realizing this, Richard Leon and Larry Phillips of the Vancouver
PET Users Group devised a hardware fix.  It consists of a resistor,
a capacitor, a diode and the unused half of the DPDT switch
connected to the record button of the cassette deck (Figure 1).



FIGURE 1.

Operation is relatively simple.  During Data writes the record
switch is closed and the capacitor charges through the resistor.
When the block is finished the motor voltage turns off and C1
discharges into the motor through the diode causing the armature
to rotate that extra little bit.  This allows a larger gap
between blocks.  During reads, the motor still does not stop
instantaneously but it won't roll far enough for the tape head
to encounter the next block.  (During reads the record switch
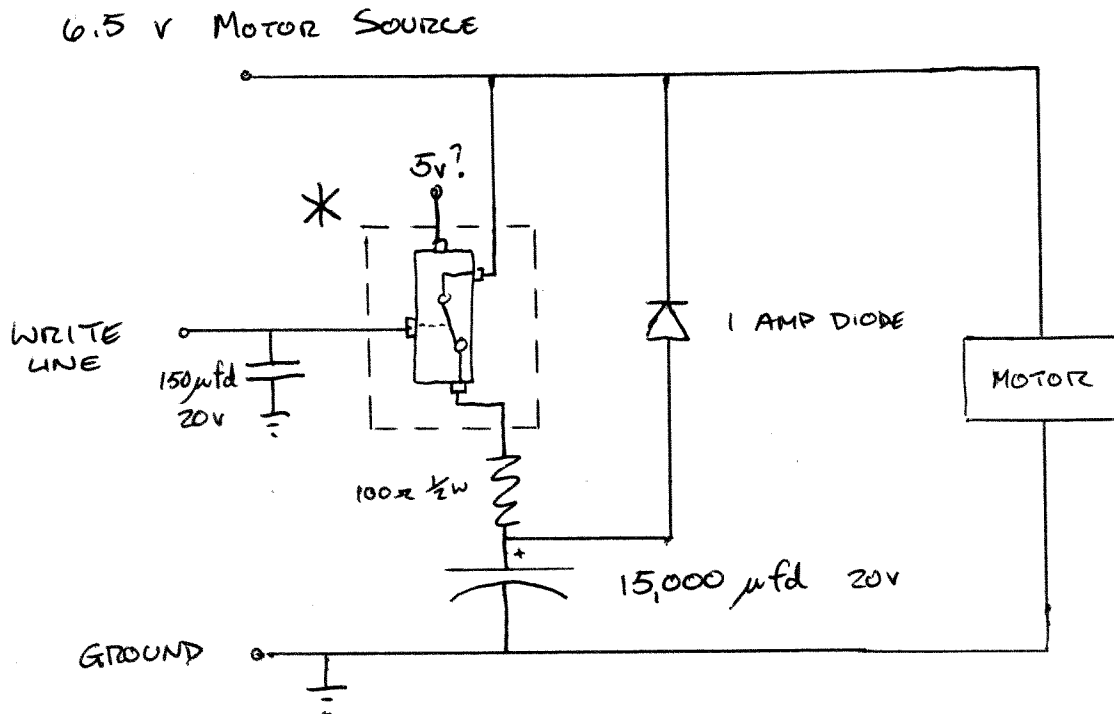is up and the charging network is disabled).


The fix itself poses only one problem.  Installation.  Many of
you may not be willing to dismantle your cassette decks to
access the record button DPDT switch.  Therefore I have a second
idea.  Using the same concept as Richard Leon, build an
'INTERFACE' for your tape deck and install it between the 6 pin
molex plug and the printed circuit board edge connector.
The same circuitry is used with one major difference.  The enable/
disable switch must be simulated such that identical operation
is obtained without using a mechanical switch.  Therefore the
swtich needs control logic such that it enables the circuit
during data writes and disables it during reads.  Ideally, this
could be done with logic gates, however most TTL logic chips
require +15 and -15 volt supplies.  There is "logic" available
on the PCB cardedge.  Here are the characteristics:

| PIN on PCB Cardedge | OPERATION | | |
|---|---|---|---|
| | NONE | READ | WRITE |
| READ | Low | Active | Active |
| WRITE | High | High | Active |
| SENSE | High | Low | Low |
| MOTOR | Open (floating) | 6.5v | 6.5v |

Using these lines a control must be designed to either
open the switch during reads or close it during writes.  This
is where I stand right now.  The 'write' line seems to be the
most likely candidate for the control input since 'write' is
held high constantly and goes low only during writes.  Therefore
it could be used to hold open a N.C. (normally closed)switch.
However, when data is passed to the tape, 'write' is active
(high and low) which means the switch will be on, off or
unstable anyways.

If this signal could be 'filtered' and seen by the
switch input as low during writes the switch would stay closed
and the design is complete.  Here's what I have so far.  Will
it work?

Karl J.

6.5 V MOTOR SOURCE



* N.C. integrated switch.  Part number anyone?