SUPPLEMENT TO K-1007-1 PET INTERFACE MANUAL

Due to significant mechanical changes to the K-1007 product, some of the information in the K-1007-1 Pet Interface Manual is no longer accurate. These changes allow the ribbon cable between the two boards to be unplugged and simplify the connections to the Pet video system. They also allow the large K-1007 board to be used on the new-style Pet simply by substituting a different version of the small board. Although there have been no electrical changes to the logic, the pin assignments in the large ribbon cable connecting the boards have been changed.

AMMENDMENTS TO INSTALLATION AND INITIAL CHECKOUT

2. Plug the small printed circuit board marked K-1007-2 Rev. C onto the PET memory expansion fingers. The board should be positioned so that the red ribbon cable and other assorted wires and connectors are facing upwards.

4. Leave the small white connector with three twisted-pair wired disconnected until later.

5. If normal Pet operation cannot be obtained, carefully unplug the large board from the ribbon cable. Pry the connector loose with a screwdriver; do not pull on the cable. Check for normal Pet operation again. If still no luck, unplug the ribbon cable from the small board and try again. These steps will serve to isolate the source of difficulty (either the small board, the ribbon cable, or the large board).

6. *****IMPORTANT***** Turn the Pet power OFF before doing step 6!

10. Plug the white connector from the small K-1007 board onto the pins which are now exposed because the video cable was removed. It should be plugged on such that the three twisted-pair wires leave the connector toward the right.

11. Plug the PET video cable connector removed in step 9 onto the black connector on the small K-1007 board. Polarizing pins in the connectors should prevent incorrect installation in steps 10 and 11.

12. Be sure that the slide switch handle close to the large red ribbon cable on the large K-1007 interface board is moved away from the edge of the board as far as possible (it is a three position switch).

The K-1007-3 is a small adapter board that connects the 60 conductor ribbon cable required by the K-1007-1 to the new style PET computers. The equivalent board for old style PET's is called the K-1007-2 and its installation is described in the violet K-1007-1 manual. Different connector boards are required because of substantial mechanical differences between the old and new style PET's.

Before starting the installation procedure, remove the 4 screws on the underside of the PET to allow the top half of the system to be tilted up. A prop bar on the left side of the chassis can be manipulated to keep the top propped up. Look inside the PET on the right hand side of the PET's printed circuit board about 2/3 of the way toward the rear. There should be two sets of two parallel rows of 25 small square posts each sticking up there. If edge fingers are instead seen, it is an old style PET and the K-1007-2 connector board must be used. Measure the gap between the two sets of pins. If it is not .2 inches, then you have a new-new style PET and a K-1007-4 connector board will be required.

JUMPER SETTING

Just to the left of the rearmost set of pins should be a set of jumpers that looks somewhat like an integrated circuit. The setting of these jumpers controls various buffers inside the PET. If they are not properly set, the PET will not be able to read from the K-1007 and the graphic software will not work properly. The jumper IC is a 20 pin device with thin metal links connecting pin 1 to 20, 2 to 19, ..., 10 to 11. When a link is intact or bridged with solder the jumper is said to be closed. When a link is cut with a knife it is said to be open. A small, sharp knife is required to cut the links. By far the best type to use is called an X-ACTO knife with a type 16 blade installed. Hobby shops usually have these and they are quite inexpensive. When using the knife, shield your eyes as it is possible to break the blade while severing a link. If the link to be severed had previously been bridged with solder, use of solder wick is recommended to remove the solder. Each of the 9 links is identified by a letter as shown in the drawing below:

RIGHT

↓

← FRONT

SH-2

H I J K L M N P R S
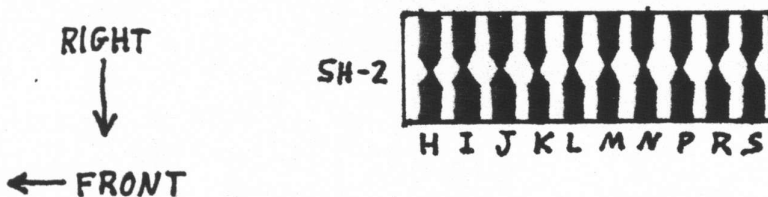
Normally the jumpers are set only once. If frequent change is anticipated, one may cut all of the links and then straddle a 10 position dipswitch over the jumper block and solder it in place. This allows rapid change when desired.

Basically there are three possibilities according to the memory capacity of the PET. The tables below show what to do for each possibility:

| 8K	16K	32K
Links open: H I K N R	Links open: K L H N R	Links open: K L M P R
Links closed: J L M P S	Links closed: I J M P S	Links closed: H I J N S
Visible Memory addressed at 2000.	Visible Memory addressed at 4000.	Visible Memory addressed at 8000 (9000 in PET)
All ROM sockets are functional	All ROM sockets are functional	The 3 empty PET ROM sockets are disabled

N was open

← Note P was closed when PET purchased.

INSTALLATION OF THE K-1007-3 CONNECTOR BOARD

The following are ammendments to the Installation and Initial Checkout procedure in the K-1007-1 PET Interface Manual to be followed when using the K-1007-3 in a new style PET.

2. Plug the small printed circuit board marked K-1007-3 onto the PET memory expansion posts. The board should be positioned so that the red ribbon cable and other assorted wires and connectors are facing toward the left of the PET. Be careful to line up the two black sockets of the K-1007-3 with the pins on the PET. A one position offset error is easy to make and would prevent proper operation. When plugging the connector board onto the PET, use a stack of index cards between the PET printed circuit board and bottom of the PET cabinet to prevent bending of the PET printed circuit board due to installation pressure. If it becomes necessary to separate the two boards later, very carefully rock the K-1007-3 and ease it off straight. Excessive force will result in a sudden release of the K-1007-3 and certain bending of the PET's connector pins.

3. The K-1007-3 board should have been received with the power cable already plugged in. If not, the power cable may be identified as having twisted orange, yellow, and green wires but no white wires. Plug it onto the black connector on the K-1007-3 that has all 7 pins present. It may be plugged in either direction but it is easiest with the wires pointing upward. The other end of the power cable must be soldered to the rectifier diodes at the front left of the PET printed circuit board as illustrated below:
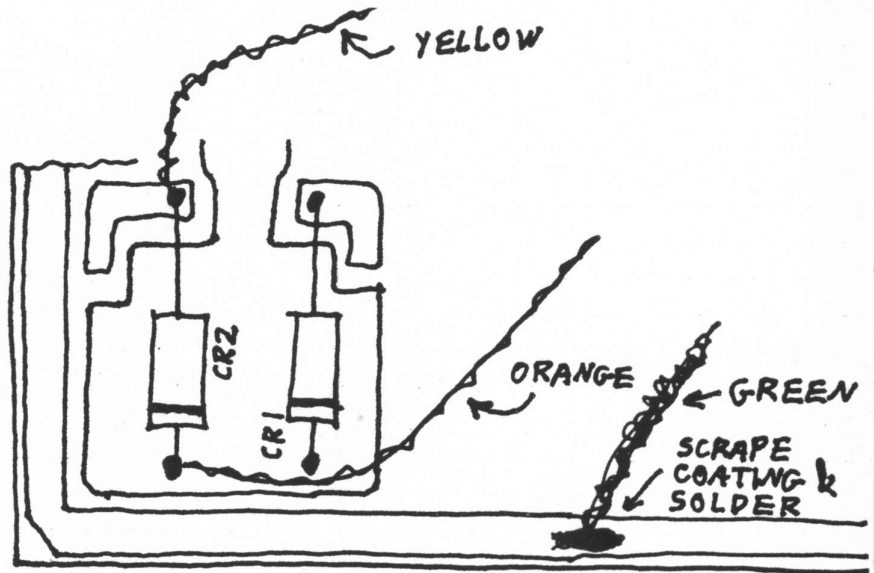
4. Leave the small white connector with three twisted-pair wires disconnected until later.

5. If normal PET operation cannot be obtained, carefully unplug the large board from the ribbon cable. Pry the connector loose with a screwdriver; do not pull on the cable. Check for normal PET operation again. If still no luck, unplug the ribbon cable from the K-1007-3 board and try again. These steps will serve to isolate the source of difficulty (either the small board, the ribbon cable, or the large board).

6. *****IMPORTANT***** Turn the PET power OFF before doing step 6!

10. Plug the white connector from the K-1007-3 board onto the pins which are now exposed because the video cable was removed. It should be plugged on such that the three twisted-pair wires leave the connector toward the right.

11. Plug the PET video cable connector removed in step 9 onto the black connector on the K-1007-3 board that is closest to the front of the PET. Polarizing pins in the connectors should prevent incorrect installation in steps 10 and 11.

12. Be sure that the slide switch handle close to the large red ribbon cable on the large K-1007-1 interface board is moved away from the edge of the board as far as possible (it is a three-position switch).

PIN CONNECTIONS TO 60 PIN RIBBON CABLE

NOTE: Because of the way that the ribbon cable connectors are constructed, it is possible to easily probe each pin while in operation. An orange stripe on the cable marks pin 1.

RIBBON CABLE	SIGNAL NAME	RIBBON CABLE	SIGNAL NAME
1	PET HORIZ	31	SEL 10
2	PET HORIZ GND	32	SEL 11
3	PET VERT	33	(no connection)
4	PET VERT GND	34	RESET
5	PET VIDEO	35	HORIZ DRIVE
6	PET VIDEO GND	36	HORIZ GROUND
7	VERT DRIVE	37	PET +8
8	VERT DRIVE GROUND	38	GROUND
9	VIDEO DRIVE	39	PET +8
10	VIDEO DRIVE GROUND	40	GROUND
11	A 0	41	PET 8VAC
12	A 1	42	GROUND
13	A 2	43	PET 8 VAC
14	A 3	44	GROUND
15	A 4	45	GROUND
16	A 5	46	GROUND
17	A 6	47	IRQ
18	A 7	48	GROUND
19	A 8	49	PHASE 2
20	A 9	50	GROUND
21	A 10	51	READ/WRITE
22	A 11	52	GROUND
23	SEL 1	53	D 0
24	SEL 2	54	D 1
25	SEL 3	55	D 2
26	SEL 4	56	D 3
27	SEL 5	57	D 4
28	SEL 6	58	D 5
29	SEL 7	59	D 6
30	SEL 9	60	D 7