Super ABC 16 game kit Installation Instructions

Congratulations on your purchase of the Super ABC kit ! This kit is designed to plug directly into any original Midway PACMAN or MS. PACMAN circuit board. Once installed, the main board will no longer use the game ROMS located at 5E, 5F, 6E, 6F, 6H, and 6J (and, if provided, 6L, 6M, 6N, or 6P), or the '285' Sync Buss Controller card located at location 6D.

Please read the following instructions **THOROUGHLY** and **COMPLETELY** before sitting down to work. The only tools necessary to install the kit are a flat surface on which to work, a piece of cardboard to place under the game board, and the chip-pulling tool provided. Always use the chip puller to remove chips, NOT a screwdriver or other pointed instrument. An ordinary pair of nail clippers may be useful to cut off the old ty-wrap in step two.

- **STEP ONE:** Unplug the edge connector from the top of your PACMAN or MS. PACMAN circuit board, and remove it from the cabinet. Place it on a piece of CLEAN CARDBOARD on a firm, flat work surface.
- **STEP TWO:** Locate and carefully remove the small square circuit board at location 6D on the main board. This board is labeled "Z-80 SYNC BUSS CONTROLLER" and is strapped to the main board with a plastic ty-wrap. The ty-wrap must be carefully cut so as to avoid cutting any traces on the main board. This is easily accomplished with an ordinary pair of nail clippers. Set this small board aside. It is no longer used as its function is included in the Super ABC.
- **STEP THREE:** Using the chip puller provided, remove any ROMs from the main board at locations 6E, 6F, 6H, and 6J. They are no longer used. *Note: if your board has sockets added at 6K and 6L, pull the chips out of them and cut any jumper wires that may be soldered from the chips to the board!*
- **STEP FOUR:** Using the chip puller, remove the two bipolar PROMs from their sockets at locations 4A and 7F. Install the **NEW** 4A and 7F (supplied) into their appropriate locations on the board, making sure the polarity notch on each chip is facing in the same direction as all of the other chips on the board.
- **STEP FIVE:**
  - *PACMAN boards:* **CAREFULLY** remove the Z-80 processor chip from the 40 pin socket at location 6B on the main game board.

- o *MS. PACMAN boards:* Unplug the ribbon cable from location 6B on the main game board and then **CAREFULLY** remove the Z-80 processor chip from the 40 pin socket at location U4 on the small daughterboard at the other end of the ribbon cable. Set the daughterboard and cable aside as they are no longer used.
- **STEP SIX:** Plug the Z-80 into the empty 40 pin socket on the Super ABC board, being certain the polarity notch matches the direction of the other chips on the board.
- **STEP SEVEN:** Make sure your cardboard sheet is in place under the game board and **CAREFULLY** insert the Super ABC board into the sockets on the main board at locations 6B and 6D. Make sure **ALL** the pins line up properly before inserting. Then, placing your palm over the two sockets, press down firmly to seat the board. You may have to put quite a bit of weight on it to get it to go all the way in. When finished, the Super ABC circuit board should be FLAT and PARALLEL with the main game board. Use the tywraps provided to secure the Super ABC board to the game board. They should pass through three holes; two on the Super ABC, one on the main game board.
- **STEP EIGHT:** Remove the character ROM chips at locations 5E and 5F and set them aside. They are no longer used.
- **STEP NINE:** As with the Super ABC board, **CAREFULLY** insert the Character ROM board into locations 5E and 5F on the main board, being certain that the notch on the 5E-5F character chip faces in the same direction as the notch on all the chips on the main board. Once properly lined up, press down firmly to seat it well.
- **STEP TEN:** Connect the 5-wire harness between the 5E-5F Character ROM board and the Super ABC board. **If this cable is not installed you will have a BLACK SCREEN.**
- **STEP ELEVEN:** Locate the 74LS161 chip at location 3R on your game board. IF IT IS IN A SOCKET, replace it with the new 74LS161 provided in the kit. If it is soldered down, it is not neccessary to replace it.
- **STEP TWELVE:** Check your DIP switch settings against the chart below and return your game board to the cabinet.

Troubleshooting

The game seems to be running, but all I see are blocks (or distorted characters) moving around!

• The Character ROM board isn't seated firmly or properly. Ensure that all the pins are lined up properly and the board is inserted facing the right way. Try pushing it down a little harder.

**On power up, the game fails to come up to the attract mode screen.
It may have garbage frozen or flashing on the screen.**

- The Super ABC board either isn't in tight enough or isn't in properly. Make sure that all of the pins are lined up and try a firm push. Be certain that dip switch 8 is turned off.

The game runs, but the only game I can play is Slow PACMAN!

- The HIGH SCORE table RAM has become corrupt. Do a RESET:

How do I clear the high score table and check the bookkeeping?

- Enter test mode via the cabinet switch located near the coin door hinge. Then hold the ONE PLAYER DOWN and ONE PLAYER START switches simultaneously for approximately 7 seconds and follow the on-screen directions.

DIP Switch Settings

Note concerning DIP SWITCH #6:
During the game ULTRA PACMAN there is a rare 'butterfly' which appears. Eating the butterfly awards the player either an extra man or an extra credit depending on the setting of DIP switch #6. DIP SWITCH #6 ALSO turns the BUY-IN feature ON and OFF.

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Option (* = recommended)             | SW1 | SW2 | SW3 | SW4 | SW5 | SW6 |
SW7 | SW8 |
-------------------------------------|-----|-----|-----|-----|-----|-----|---
--|-----|
Free Play                            | ON  | ON  |     |     |     |     |
|     |
1 Coin   1 Credit                   *| OFF | ON  |     |     |     |     |
|     |
1 Coin   2 Credits                   | ON  | OFF |     |     |     |     |
|     |
2 Coins  1 Credit                    | OFF | OFF |     |     |     |     |
|     |
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--|-----|
1 Pacman Per Game                    |     |     | ON  | ON  |     |     |
|     |
2 Pacman Per Game                    |     |     | OFF | ON  |     |     |
|     |
3 Pacman Per Game                   *|     |     | ON  | OFF |     |     |
|     |
5 Pacman Per Game                    |     |     | OFF | OFF |     |     |
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Bonus Player @ 10000 Pts             *|     |     |     |     | ON  | ON  |     |     |
Bonus Player @ 15000 Pts              |     |     |     |     | OFF | ON  |     |     |
Bonus Player @ 20000 Pts              |     |     |     |     | ON  | OFF |     |     |
No Bonus Players                      |     |     |     |     | OFF | OFF |     |     |
--------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
Free Game in ULTRA PAC / Buy-in ON   *|     |     |     |     |     | ON  |     |     |
Free Life in ULTRA PAC / Buy-in OFF   |     |     |     |     |     | OFF |     |     |
--------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
Auto. Rack Advance (Skip)             |     |     |     |     |     |     | ON  |     |
Normal- Must be off for game play    *|     |     |     |     |     |     |     | OFF |
--------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
Freeze Video (Pause)                  |     |     |     |     |     |     |     | ON  |
Normal- Must be off for game play    *|     |     |     |     |     |     |     | OFF |
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