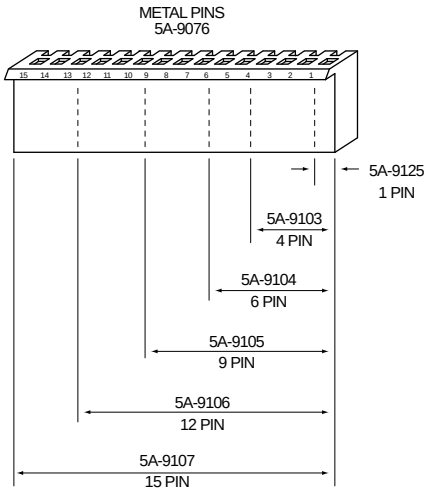
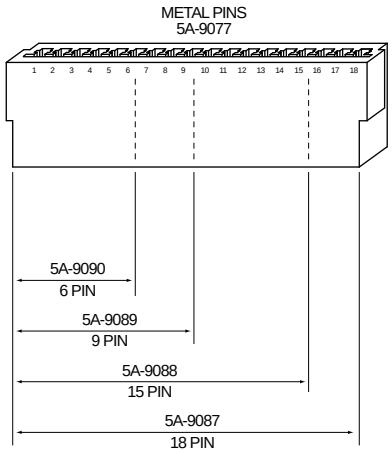
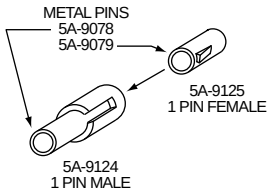
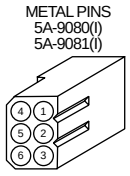
# MALE CONNECTORS AND FEMALE RECEPTACLES

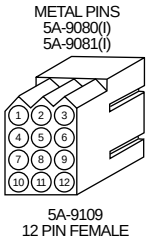
(UNLESS SPECIFIED OTHERWISE ALL CONNECTOR HOUSINGS ARE WHITE)

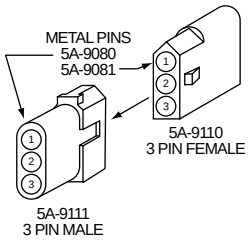


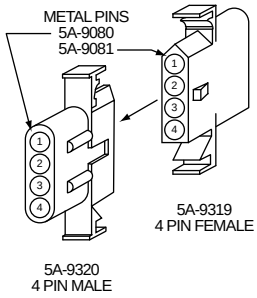



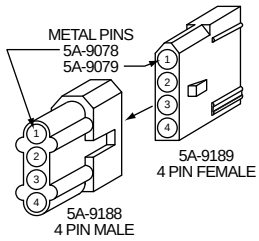



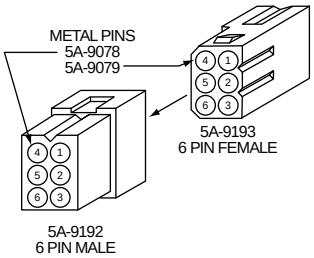



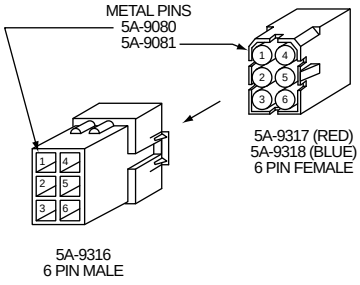



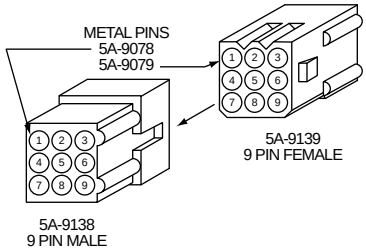



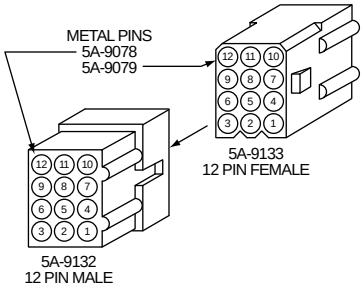



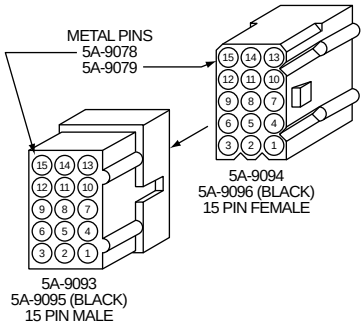



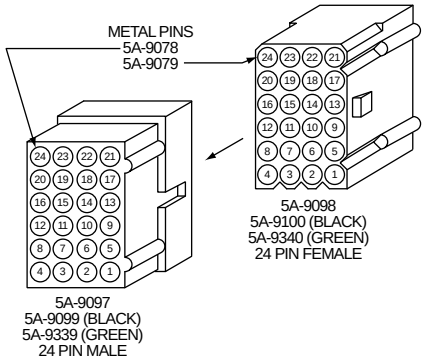



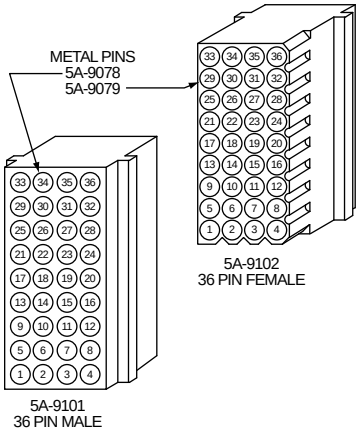




v1.1 1/1/11

(all the ones) RH

## Williams Molex Connectors:

Prefix Numbers are as follows:
Each connector receives a number,letter, number combination.
A hyphen separates the male (or female) designation from the pin number.

This paper showe some specific examples for Firepower 1980.
J Designations refer to Molex Plug (Male or Board Header Pins)
P Designations refer to Molex Jack (Female)

For example on Firepower 1J2-3 would refer to:
a connector on board 1 (MPU)
specifies it is a Jack (Male or Board) side of the connector,
identifies the connector as position 3 on the board,
and stipuales pin number 3.
This is a header pin on the System 6 MPU board for Logic Ground from the PSU.

Typical Williams prefix number first digit are as follows:
1. MPU /CPU Board
2. Driver Board
3. Power Supply Board
4. Master Display Board
5. Slave Display Board
6. Back Box / Miscellaneous
7. Cabinet
8. Playfield
9. Insert Board
10. Sound Board
11. Not Assigned
12. Speech Module
13. Not Assigned
14. Not Assigned
15. Flipper Power Supply

e.g. 8P1 would mean Playfield Connector 1 (Female) =
5A-9098 Female 24-pin .062" White Molex: 03-06-1241

## FIREPOWER (and other '80s SS Pinball) CONNECTORS

See above for ,062" and .093" connector pins and part numbers.

**(8P1/8J1 White 15-pin) Playfield Switches Connector**
5A-9093 Male 15-pin .062" Housing (5x3 White) Molex: 03-06-2152 w/Ears: 03-06-2151
5A-9094 Female 15-pin .062" Housing (5x3 White) Molex: 03-06-1152 w/Ears: 03-06-6155

**(9P1/9J1 Black 15-pin) Insert Door Lamps Connector**
5A-9095 Male 15-pin .062" Housing (5x3 Black)
5A-9096 Female 15-pin .062" Housing (5x3 Black)

**(8P2/8J2 White 24-pin) Playfield Lamps (& G.I.) Connector**
5A-9097 Male 24-pin .062" Housing (6x4 White) Molex: 03-06-2242 w/Ears: 03-06-2241
5A-9098 Female 24-pin .062" Housing (6x4 White) Molex: 03-06-1241

**(8P3/8J3 Black 24-pin) Playfield Solenoids, Special Switches Connector**
5A-9099 Male 24-pin .062" Housing (6x4 Black)
5A-9100 Female 24-pin .062" Housing (6x4 Black)

5A-9101 Male 36-pin .062" Housing (9x4) Molex: 03-06-1361
5A-9102 Female 36-pin .062" Housing (9x4) Molex: 03-06-2361

**(3P2 Backbox Gnd to PSU)**
5A-9108 Female 6-pin .093" Housing (3x2) Molex: 03-09-1063 maybe use 03-09-1064
6-Pin Female Molex: 03-09-1064 w/Ears: 03-09-1061

**(3P1 Backbox to PSU)**
5A-9109 Female 12-pin .093" Housing (4x3) Molex: 03-09-1126

5A-9110 Female 3-pin .093" Housing (inline) Molex: 03-09-1032
5A-9111 Male 3-pin .093" Housing (inline) Molex: 03-09-2032

5A-9132 Male 12-pin .062" Housing (4x3) Molex: 03-06-2122
5A-9133 Female 12-pin .062" Housing (4x3) Molex: 03-06-1122

5A-9138 Male 9-pin .062" Housing (3x3) Molex: 03-06-2092
5A-9139 Female 9-pin .062" Housing (3x3) Molex: 03-06-1092

5A-9188 Female 4-pin .062" Housing (inline,no ears) Molex: 03-06-1042 w/Ears: 03-06-2041
5A-9189 Male 4-pin .062" Housing (inline,no ears) Molex: 03-06-2042 w/Ears: 03-06-2041

**(6P1/6J1 White 6-pin) Transformer to A/C line & Jumpers**
5A-9192 Male 6-pin .062" Housing (3x2) Molex: 03-06-2061 w/Ears: 03-06-2062
5A-9193 Female 6-pin .062" Housing (3x2) Molex: 03-06-1062 w/Ears: 03-06-1061

**Rear Entry connectors on Driver Board 40-Way:**
(2P1) 5A-9066 Female .156" 8-way Driverboard Connector (Original)
5A-9066 8-way .156" Female Molex: 09-52-3082 (5 needed per board)
Also can use 10-way .156" Female Molex: 09-52-3102 (4 needed per board)

### .084" Pins

Male .084" crimp pin 02-08-2006
Female .084" crimp pin 02-08-1004

### .062" Family Links

GPE Page for Molex .062": http://www.greatplainselectronics.com/Category-51.asp
.062" Plug Housings: http://www.greatplainselectronics.com/category-83.asp
.062" Receptacle Housings: http://www.greatplainselectronics.com/category-84.asp

Mouser Page for Molex .062" http://gb.mouser.com/catalog/642/1496.pdf
To obtain mouser part nuber add "538-" in front of Molex Ref.

### .062" (1.57mm) Pins

| Part Number | Molex Ref. No. |
|---|---|
| 5A-9078 Male .062" Crimp Pin | 02-06-2103 Wire Size: 18-24 awg *normal |
| 5820-09078-00 Crimp Pin | 02-06-2132 Wire Size: 24-30 awg |
| 5A-9079 Female .062" Crimp Pin | 02-06-1103 Wire Size: 18-24 awg *normal |
| 5821-09079-00 Crimp Pin | 02-06-1132 Wire Size: 24-30 awg |
| Tin/Phosphor Bronze Female .062" | 02-06-1202 Wire Size: 18-24 awg **Best Quality |

### .093" Family Links

GPE Page for Molex .093": http://www.greatplainselectronics.com/Category-46.asp
.093" Plug Housings: http://www.greatplainselectronics.com/Category-87.asp
.093" Receptacle Housings: http://www.greatplainselectronics.com/Category-88.asp

Mouser Page for Molex .093" http://gb.mouser.com/catalog/642/1498.pdf
To obtain mouser part number add "538-" in front of Molex Ref.

### .093" (2.36mm) Pins

| Part Number | Molex Ref. No. |
|---|---|
| 5A-9080 Male .093" Crimp Pin | 02-09-2103 Wire Size: 14-20 awg *normal |
| 5280-09080-00 Male .093" Crimp Pin | 02-09-2118 Wire Size: 18-22 awg |
| 5A-9081 Female .093" Crimp Pin | 02-09-1104 Wire size: 14-20 awg *normal |
| 5281-09081-00 Female .093" Crimp Pin | 02-09-1119 Wire size: 18-22 awg |

791-09316-00
5A-9316 Male 6-pin .093" Housing (3x2 locking) May be Molex 1991 Series: 19-09-2061 (white only)
5A-9317 Female 6-pin .093" Housing (3x2 Red, locking) Molex 1991 Series: 19-09-2061 (white only)
5A-9318 Female 6-pin .093" Housing (3x2 Blue, locking) Molex 1991 Series: 19-09-2061 (white only)

5A-9319 Female 4-pin .093" Housing (1x4) Molex: 03-09-1042
5A-9320 Male 4-pin .093" Housing (1x4) Molex: 03-09-2042

5A-9339 Male 24-pin .062" Housing (6x4 Green)
5A-9340 Female 24-pin .062" Housing (6x4 Green)

METAL CRIMP PINS for .062" Housings
5A-9078 Male .062" Crimp Terminal
Molex: 02-06-2103 Wire Size: 18-24 awg

5A-9079 Female .062" Crimp Terminal
02-06-1103 Wire Size: 18-24 awg

METAL CRIMP PINS for .093" Housings
5A-9080 Male .093" Crimp Terminal
Molex: 02-09-2118 Wire Size: 18-22 awg

5A-9081 Female .093" Crimp Terminal
Molex: 02-09-1119 Wire size: 18-22 awg

## .093" Family

Part Number Description Molex Ref. No.

**1-pin uses .093" terminals.**
1-Pin Female Housing 03-09-1011
1-Pin Male Housing 03-09-2011

Kit of 1-pin connectors with locking ears (with 5 male / 5 female and 7 ea. correct pins):
Mouser: 538-76650-0061 Molex: 76650-0061

**2-pin uses .093" terminals.**
5792-12561-00 Connector 2 position male plug
43-0250-00 2-Pin Male Housing 03-09-2022 w/Ears: 03-06-2021

5791-12570-00 Connector 2 position Recepticle
43-0248-00 2-Pin Female Housing 03-09-1022 w/Ears: 03-06-1027

Kit of 2-pin connectors with locking ears (with 3 male / 3 female and 10ea. correct pins):
Mouser: 538-76650-0060 Molex: 76650-0060

**3-pin uses .093" terminals.**
Firepower: 5A-9110
5792-09110-00 3-Pin Female Housing 03-09-1032 w/Ears: 03-06-1031
Firepower: 5A-9111
5791-09111-00 3-Pin Male Housing 03-09-2032 w/Ears: 03-06-2031

Kit of 3-pin connectors with locking ears (with 3 male / 3 female and 11ea. correct pins):
Mouser: 538-76650-0058 Molex: 76650-0058

43-1105-00 4-Pin Male (Sq. 2x2) 03-09-2040
43-1107-00 4-Pin Female(Sq. 2x2) 03-09-1040

Firepower: 5A-9320
5791-09320-00 4-Pin Male (Vert) 03-09-2042 w/Ears: 03-09-2041
Firepower: 5A-9319
5792-09319-00 4-Pin Female (Vert) 03-09-1042 w/Ears: 03-09-1041

Kit of 4-pin connectors with locking ears (2 male / 2 female and 10ea. correct pins):
Mouser: 538-76650-0059 Molex: 76650-0059

43-0454-00 4-Pin Male 03-09-2049
43-0455-00 4-Pin Female 03-09-1049

43-1108-00 6-Pin Male (Sq. 3x3) 19-09-2068
43-1106-00 6-Pin Female(Sq. 3x3) 19-09-1069

**6-pin (3x2) uses .093" terminals.**
Firepower: 5A-9317 (red) 5A-9318 (blue) Note: These may be .084" 50-84-1060 (white only)
43-0491-00 6-Pin Female (white) 03-09-1064 w/Ears: 03-09-1061

Firepower: 5A-9316 Note: These may be .084" 50-84-1060 (white only)
791-09316-00 6-Pin Male (white) 03-09-2062 w/Ears: 03-09-2061

Kit of 6-pin connectors (.093" as above) with locking ears (2 male / 2 female and 14ea. correct pins):
Mouser: 538-76650-0054 Molex: 76650-0054

**9-pin (3x3) uses .093" terminals.**
9-Pin Male Housing 03-09-2092 w/Ears: 03-09-2091
9-Pin Female Housing 03-09-1094 w/Ears: 03-09-1091

Kit of 9-pin connectors as above with locking ears (1 male / 1 female and 11ea. correct pins):
Mouser: 538-76650-0055 Molex: 76650-0055

**12-pin (4x3) uses .093" terminals.**
43-0458-00 12-Pin Male w/ Ears 03-09-2122
43-0459-00 12-Pin Female w/Ears 03-09-1121

Kit of 12-pin connectors as above with locking ears (1 male / 1 female and 14ea. correct pins):
Mouser: 538-76650-0056 Molex: 76650-0056

**15-pin (5x3) uses .093" terminals.**
5792-10354-00 15-pin Male Housing 03-09-2158 w/Ears: 03-09-2159
5791-10353-00 15-pin Female Housing 03-09-1157 w/Ears: 03-09-1151

Kit of 15-pin connectors as above with locking ears (1 male / 1 female and 17ea. correct pins):
Mouser: 538-76650-0057 Molex: 76650-0057

## .062" Family

Part Number Description Molex Ref. No.

**1-pin uses .062" terminals.**
Firepower: 5A-9124
5791-09124-00 1-Pin Male Housing 03-06-2011
5A-9078 .062" pin

Firepower: 5A-9125
5792-09125-00 1-Pin Female Housing 03-06-1011
5A-9079 .062" pin

Kit of 1-pin connectors as above (with 5 male / 5 female and correct pins):
Mouser: 538-76650-0062 Molex: 76650-0062
43-0015-00 2-Pin Male Housing 03-06-2023 w/Ears: 03-06-2024
43-0444-00 2-Pin Female Housing 03-06-1023 w/Ears: 03-06-1022

**2-pin uses .062" terminals.**
Kit of 2-pin connectors with locking ears (with 8 male / 8 female and correct pins):
Mouser: 538-76650-0063 Molex: 76650-0063

**3-pin uses .062" terminals.**
5791-09111-00 3-pin Male Housing 03-06-2032 w/Ears: 03-06-2033
5792-09110-00 3-Pin Female Housing 03-06-1032 w/Ears: 03-06-1038

Kit of 3-pin connectors with locking ears (with 3 male / 3 female and correct pins):
Mouser: 538-76650-0063 Molex: 76650-0064

**4-Pin uses .062" terminals.**
Firepower: 5A-9188
5791-09188-00 4-Pin Male (Vert) 03-06-2042

Firepower: 5A-9189
5791-09189-00 4-Pin Female (Vert) 03-06-1042

Kit of 4-pin connectors with locking ears (with 2 male / 2 female and correct pins):
Mouser: 538-76650-0065 Molex: 76650-0065

43-0470-00 4-Pin Male (Square) 03-06-2044

**6-pin uses .062" terminals.**
Firepower: 5A-9192
5791-09192-00 6-pin Male (3x2) 03-06-2061 w/Ears: 03-06-2062
Firepower: 5A-9193
5792-09193-00 6-Pin Female (3x2) 03-06-1062 w/Ears: 03-06-1061

Kit of 6-pin connectors with locking ears (with 2 male / 2 female and correct pins):
Mouser: 538-76650-0067 Molex: 76650-0067

**9-pin uses .062" terminals.**
Firepower: 5A-9138
5791-09138-00 9-Pin Male (3x3) 03-06-2092 w/Ears: 03-06-2091
Firepower: 5A-9139
5792-09139-00 9-Pin Female (3x3) 03-06-1092 w/Ears: 03-06-1091

Kit of 9-pin connectors with locking ears (with 1 male / 1 female and correct pins):
Mouser: 538-76650-0068 Molex: 76650-0068

**12-pin uses .062" terminals.**
Firepower: 5A-9132
5791-09132-00 12-pin Male (4x3) 03-06-2122 w/Ears: 03-06-2121
Firepower: 5A-9133
5792-09133-00 12-pin Female (4x3) 03-06-1122 w/Ears: 03-06-1121

Kit of 12-pin connectors with locking ears (1 male / 1 female and correct pins):
Mouser: 538-76650-0069 Molex: 76650-0069

**15-pin (5x3) uses .062" terminals.**
Firepower: 5A-9093
5791-09093-00 15-Pin Male Housing 03-06-2152 w/Ears: 03-06-2151
Firepower: 5A-9094
5792-09094-00 15-Pin Female Housing 03-06-1152 w/Ears: 03-06-6155

**24-PIN (6x4) uses .062" terminals.**
Firepower: 5A-9097
5791-09097-00 24-pin Male (6x4) 03-06-2242 w/Ears: 03-06-2241
Firepower:5A-9098
5792-09098-00 24-pin Female (6x4) 03-06-1241

Firepower: 5A-9099 Male
5791-9099-00 24-pin (6x4 Black) NLA/Custom Order
Firepower: 5A-9100 Female
5792-9100-00 24-pin (6x4 Black) NLA/Custom Order
Firepower: 5A-9339 Male
5791-9339-00 24-pin (6x4 Green) NLA/Custom Order
Firepower: 5A-9340 Female
5792-9340-00 24-pin (6x4 Green) NLA/Custom Order

**36-Pin (4 x 9) uses .062" terminals:**
Firepower: 5A-9101
5791-09101-00 36-Pin Male w/Ears 03-06-2361
Firepower: 5A-9102
5792-09102-00 36-Pin Female Housing 03-06-1361

Kit of 36-pin connectors with locking ears (1 male / 1 female and 40ea. correct pins):
Mouser: 538-76650-0073 Molex: 76650-0073