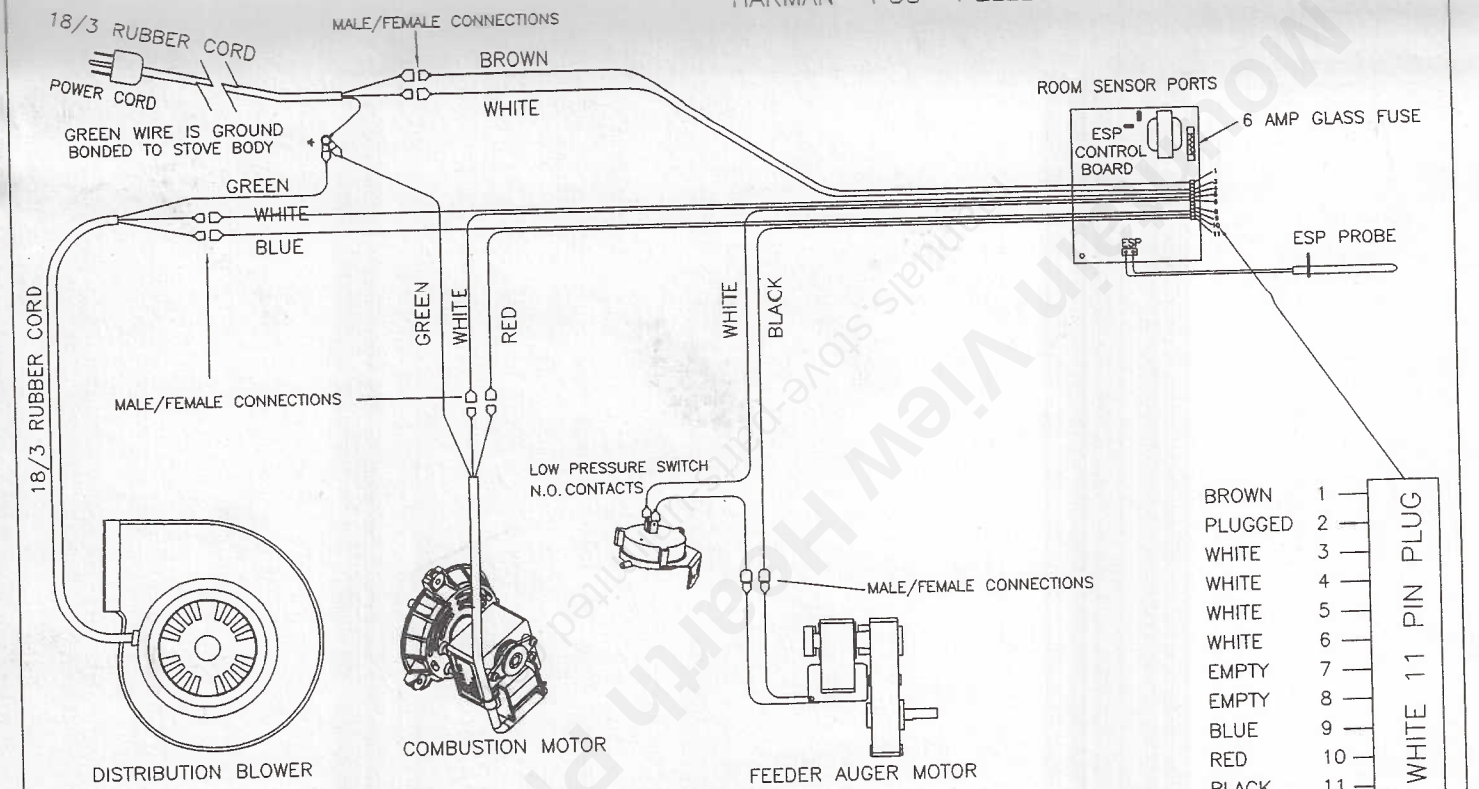
HARMAN P38 PELLET STOVE WIRING DIAGRAM



MAX. WATTS – 336 @ 120VAC 60Hz = 2.8 A
STANDARD USE WATTS – 336 @ 120VAC 60Hz = 2.8 A

PART NO. 3-90-773869

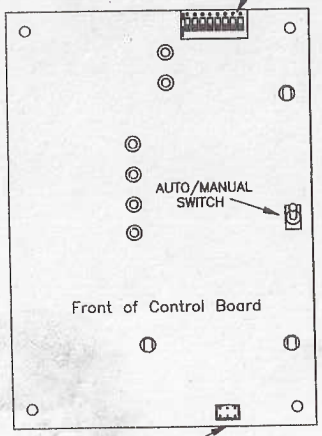
Hearth & Home Technologies

Microprocessor Control Board
Dipswitch settings
For 120VAC 60 Hz

UPDATED December 15, 2010
PART # 3-89-677402
File: [harmanfs1\data\autocad_drawings\XXV_PELLET\677402.dwg]

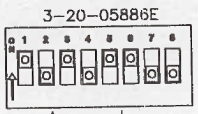
CONTROL BOARD PART #	WHERE USED	REVISION RELEASE DATE
3-20-05886E	Freestanding Pellet Stoves<--NEW SETTINGS	October 2010
3-20-05887B	PC 45 corn/pellet stove	Dec. 2010
3-20-05888C	PF 100 , BA 100 (hot air furnace)	Dec. 2010
3-20-05889A	DVC direct vent coal stoker	May 2008
3-20-06142E	P61 manual, Super-Mag Stoker, P38	Dec. 2010
3-20-06143D	PB 105, BH 105, HF 60, BH60 boliers	Dec. 2010

Dipswitch Location

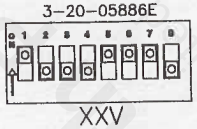


DDM PORT
(Diagnostic Display Monitor)

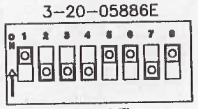
Finned Cartridge Ignition



Accentra Advance



XXV P35I



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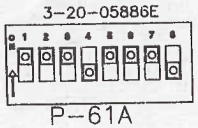
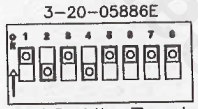
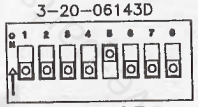


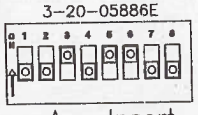
P-61A



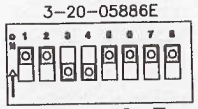
P-68 UL Feeder 6 RPM



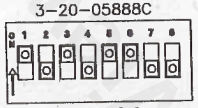
PB 105 6 RPM



Acc Insert

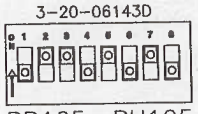


P-68 -2 Feeder 4 RPM

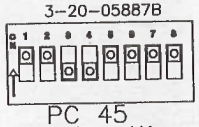


PF 100 6 RPM

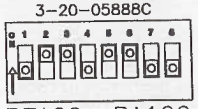
Pressure Ignition



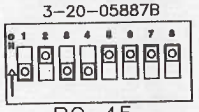
PB105 BH105 10 RPM



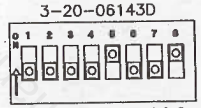
PC 45 Pellet setting XXV-2 feeder



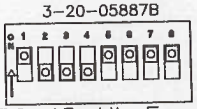
PF100 BA100 10 RPM



PC 45 Corn setting XXV-2 feeder

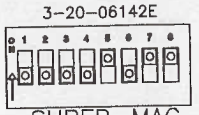


HF60 BH60 6 RPM

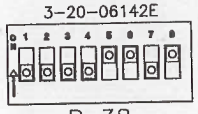


PC 45-UL Feeder Corn & Pellet

Manual Ignition



SUPER-MAG



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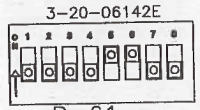
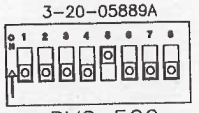


P-61



DVC 500

Dipswitch 1,2,3
off,off,off = program default
off,off,on = program -21 sec.
off,on,off = program -43 sec.
off,on,on = program -64 sec.
on,off,off = program +21 sec.
on,off,on = program +43 sec.
on,on,off = program +64 sec.
on,on,on = program +85 sec.

NOTE: A connected DDM (Diagnostic Display Monitor) on power up will show an OFF as 0, and an ON as 1.

Dipswitch # 1,2,3 control the ignition cycle "charge" (quantity of pellets augered into the burn pot on startup).*

Dipswitch # 4 factory set OFF for power failure shutdown with in line (short term battery back-up, UPS) *

Dipswitch # 5 is for ESP type. This switch will need to be OFF with any ESP other than RED.

Dipswitch # 6 is for Room Sensor Differential. "ON" reduces the Diff. by 1 deg. F.

Dipswitch # 6 is for BOILERS. "ON" when using atsmopheric kit or high altitude installation. *

Dipswitch # 7,8 set the MAX ESP temperature for specific models. (Set as shown above.)

(NOTE: Be sure that all of these switch settings are set for the unit in which they are being installed)

* see owners manual

3-89-677402

HARMAN
BUILT TO A STANDARD, NOT A PRICE

Fig 1 Remove Panels

Cut Wire Ties

Blowers, Feed Motor and Power Supply

Fig 2 ESP

Fig 3 Remove Sheetmetal screws

Fig 4

Remove cords from circuit board plate.

Fig 5

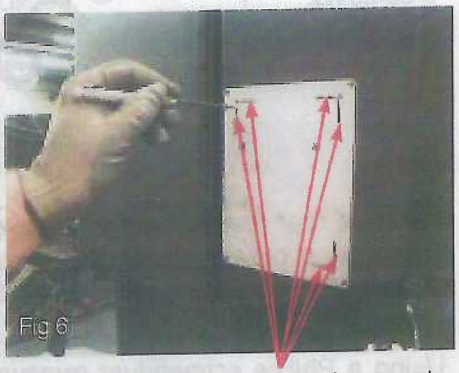


Fig 6

Scribe hopper with template using an awl.

Fig 7

Drill pilot holes.

Fig 8

Using a square, draw lines between pilot holes

Fig 9

Using right and left handed shears cut on lines made from previous step.

Fig 10

File edges down with a flat file.

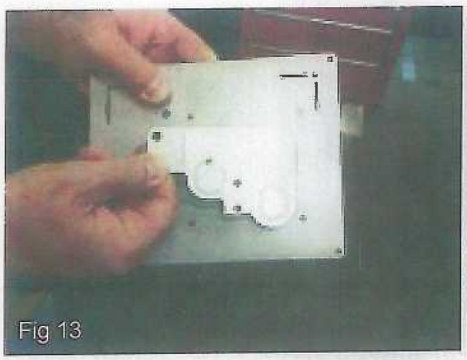
Fig 11

Insert new circuit board plate and attach with 4 black sheetmetal screws supplied.

Fig 12

Bend tab flat as shown

R:\Todd\Instruction Sheets\3-89-7738111



Remove cord clamp plate from circuit board template.

Install power cord and distribution blower cord in the cord clamp plate as shown

Install power cord clamp plate on heat shield using the grounding post supplied as shown.

Power cord changes prior to wiring components

Be sure to replace the female terminal to a male terminal on the white wire and change the female terminal on the green wire to a ring terminal.

Tie wrap wires to the cord clamp plate as shown.

Tie wrap wires to the heat shield.

Note: If the unit has a thermostat installed onto the circuit board, you must remove the thermostat and install the room sensing probe if "room temp" is going to be used. Reference page 6 in the owners manual for more information.

P38+ Circuit Board Upgrade Kit
Part # 1-00-7738111 *Pre Serial #008190059*

HARMAN®
BUILT TO A STANDARD, NOT A PRICE

Kit Includes:

Item Number	Qty/Assy	Description
1-00-7738111		P38 BOARD RETROFIT
1-00-00010	1	MISC PARTS PACK
1-10-07142	1	CIRCUIT BOARD KIT
1-10-7738112	1	MOUNTING PLATE
1-10-7738113	1	DRILL FIXTURE
3-20-08727	1	WIRING HARNESS-120VAC60HZ
3-89-7738111	1	INSTRUCTIONS
3-90-08422	1	MANUAL
3-90-773869	1	WIRING DIAGRAM

Tools Needed

5/16" Nutdriver
Wire Strippers
Crimping Tool
Diagonal Cutting Pliers
Right & Left Hand Metal Shears (Red & Green Handles)
1/8" HS Bit (with kit)
Philips Scewdriver
1/4" or 3/8" HS Bit
Small Flat File
10 Tie Wraps

Remove rear panels exposing the rear of the unit. (Fig 1). Remove wiring from circuit board (feed motor, combustion blower, distribution blower, ESP and power supply) **NOTE: DO NOT CUT THESE WIRES, These will be re-used when installing the new wiring harness.** Cut wire ties and remove wires from heat shield. (Fig 2)

Using a Philips screwdriver remove the black sheetmetal screws allowing the control board panel to be pulled away from the hopper. (Fig 3)

Remove cords from existing circuit board plate and place panel and circuit board to the side as these will no longer be used. (Fig 4)

Once the circuit board plate is removed place the template on the hopper as shown in Fig 5 using the black sheetmetal screws that held the original circuit board plate to the hopper.

Once the template is mounted, scribe the hopper with an awl as showed in Fig 6

Drill (7) pilot holes in hopper using 1/8" drill bit as shown in (Fig 7). Using a square, scribe lines on the hopper between holes as shown in (Fig 8).

Using right and left handed sheet metal shears cut on lines to open the hole to accept the new circuit board plate (Fig. 9). Take a flat file and file down any burs created from cutting the sheetmetal (Fig 10).

Install new circuit board plate using the 4 black sheetmetal screws supplied in the kit (Fig. 11).

Bend the tab flat located on the heat shield above the distribution blower as shown in (Fig. 12) then remove the cord clamp plate from template as shown in (Fig. 13).

Once you install the cord clamp plate you can then install the power cord, distribution blower wiring and the grounding post as shown in (Fig 14) & (Fig 15). Be sure to replace the female terminal to a male terminal on the white wire and change the female terminal on the green wire to a ring terminal.

Using the wiring harness provided, wire the remaining motors and blowers in accordance to the wiring diagram supplied. The sky blue jumper is used between the feed motor and the pressure switch if necessary. Once you have the unit wired tie wrap the wires to the cord clamp plate and heat shield as show in (Fig 16) & (Fig 17).

Note: Control board dip switch settings are preset for units with black ESP wires. If your units ESP wires are red, switch #5 must be turned to the "ON" position.