Bally
GAMING • SYSTEMS ®

GameMaker ®

MODULE 7

MK7-V7MOD-0001

PROGRESSIVES

Bally Gaming and Systems

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Module 7

Progressive Operation Table of Contents

Module 7

Progressive Operation

Overview

A progressive jackpot represents an amount of money held in reserve, which is paid out for a specific win. The jackpot begins at a selected minimum value, and increases by a percentage of money wagered on the games to which the progressive is connected.

Progressive Hardware Description

A progressive system requires a controller, which is a computer to track the progressive amounts. The controller receives wager information from the games, then increases the progressive by a percentage of the wager.

The jackpot information can be incorporated into the on-screen pay table of the game in socket P1, thereby eliminating the need for an external display to communicate the value of the progressive to the player. If more than one game has progressive jackpots, multiple controllers as well as additional displays may be required.

A Game Maker® will support one bidirectional (S/MPI progressive and three unidirectional (MPI) progressives with the appropriate number of controllers. The Expanded Progressive Board Assembly (AS-04269-0005) will enable all ten games to support bidirectional progressive jackpots. S/MPI operation will allow each game to assimilate the progressive amount into each on-screen pay table and may, therefore, eliminate the need for additional signs.

⚠️ **Note:** If Game Maker® Main program is "Version 14" or later, turn to page 7-8 for the most current information for progressive operation.

Progressive Configuration

Progressive operation can be configured only when DIPSW2-7 is ON. SafeRAM™ Clear is required to change the settings once they are configured. Some markets require an additional keyswitch (M-00281-0172) for progressive changes. A jumper must be installed on W4, located on the MPU board, to enable the RS-485 return serial communications channel.

Win Level Setup

The Win Level setup associates a winning combination with a progressive jackpot. Win levels must be configured before the game can be enabled for progressive operation. As many as eight progressives can be associated within each game.

The following illustration is an example of a poker SMI with four levels of winning combinations associated with progressive jackpots.

Use the following procedure to configure win levels when using Game Maker® Main software development prior to "Version 14." For newer Mains, see procedures beginning on page 7-8.

Access the Audit Key Menu. Select PROGRESSIVE under the CONFIGURATION sub-menu. Select the WIN LEVEL SETUP icon. The first game in the listing is the SMI installed in the MPU board socket P1. The other installed games are listed according to their physical locations in the game sockets. NO PROGRESSIVE indicates that the game does not support progressive jackpots.

Select a game for progressive configuration. Use the LEFT and RIGHT icons to select win combinations (right=down, left=up). Use the DOWN and UP icons to change the progressive level number for each win combination. Use SELECT to save the win level priorities and return to the game selection list. Repeat for each progressive game.
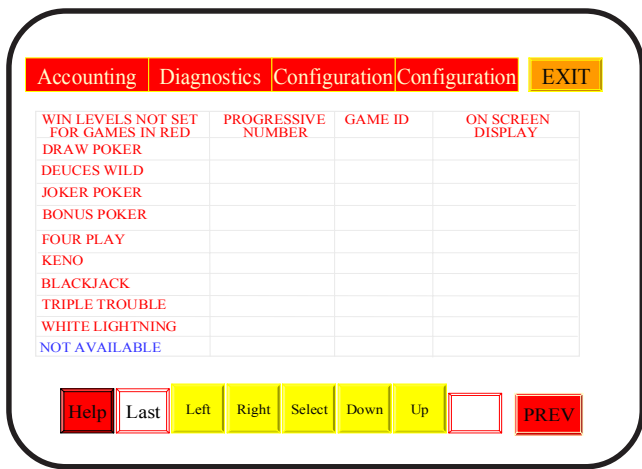
Progressive Configuration (cont.)

Assigning a Progressive to a Controller

Once the Win levels have been configured, each game can be assigned to a controller. PROGRESSIVE NUMBER assigns a particular game to a specific port and its associated controller.

GAME ID allows the game to identify jackpot information directed specifically to it from the controller. Game ID must correspond to the game's physical connection to the progressive link cable.

Selecting PROGRESSIVE SETUP displays the following:

Accounting	Diagnostics	Configuration	Configuration	EXIT

WIN LEVELS NOT SET FOR GAMES IN RED	PROGRESSIVE NUMBER	GAME ID	ON SCREEN DISPLAY
DRAW POKER			
DEUCES WILD			
JOKER POKER			
BONUS POKER			
FOUR PLAY			
KENO			
BLACKJACK			
TRIPLE TROUBLE			
WHITE LIGHTNING			
NOT AVAILABLE			

Help	Last	Left	Right	Select	Down	Up		PREV

Use the LEFT and RIGHT icons to step through PROGRESSIVE NUMBER, GAME ID, and ON SCREEN DISPLAY for each of the ten games.

Use SELECT to save the configuration and return to the PROGRESSIVE sub-menu.

When the configuration process is completed and the Main Door is closed, the GAME MENU icons display either "PROGRESSIVE," or the top progressive value.

The text "PROG. OFF" will be displayed where the progressive value is expected when the serial data has been interrupted for more than five seconds. Play on this game will be inhibited until communication is restored.

Where possible, the game paytables will also display the current progressive value. If a value is not available, the text "JACKPOT" or "JKPT" is displayed.

Tip: If the message "PLEASE CHECK PROGRESSIVE LEVEL SETUP" appears, go to WIN LEVEL SETUP and make the necessary changes.

Diagnostics and Troubleshooting

Diagnostic evaluation of each progressive is available from the COMMUNICATION TEST sub menu of PROGRESSIVE. Each of the eight jackpot levels of the ten controllers can be exercised and evaluated with the sub-menu. The operator may send coin pulses or jackpot messages by touching the appropriate icon in the table and activating the appropriate SEND command at the bottom of the screen. The table displays the current progressive value received from the controller. "NO DATA" is displayed if no controller information is received within five seconds.

Note: Without the Expanded Progressive Assembly, only progressives assigned to controller 1 will be capable of displaying the progressive value in this diagnostic menu.

Hardware Requirements

Progressive Types

Progressive systems can be stand-alone systems for one game or machine; or multiple games and machines linked. The Game Maker® can support most combinations of progressive systems.

Mikohn Con2A Linked Progressive

For a Mikohn linked progressive system, the following parts are required:

| PART #	QUANTITY	DESCRIPTION	DIAGRAM REF. #
CBL-20085-0001	1	Reg. 14 S/MPI Cable	4
E-00620-0662	1	4N35 Opto Isolator	1
CBL-20079-0001	1	Machine Link Cable Harness	2
CBL-30166-0001	1	Con2A Controller Cable	3
AS-02936-0016	1	Mikohn Con2A Controller	5

Hardware Requirements (cont.)

## Installation of Linked Progressive Hardware
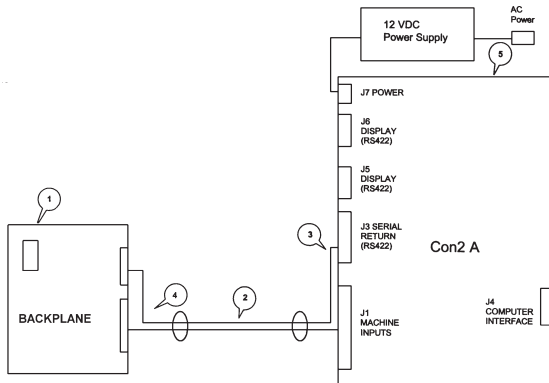
Install the 4N35 opto isolator into the U4 socket of the Game Maker® Backplane Board. The 8-circuit MTA-100 insulation displacement connector of CBL-20085-0001 connects at the backplane in JPROG1. The 4-circuit receptacle connects to the 8-Machine Link Cable CBL-30164-0001.

The Con2A Controller cable connects the controller with a maximum of four 8-Machine Link Cables. Each 15-circuit housing is numbered according to the machine identification locations at J1. Additional cables may be added if more machines are included on the progressive link. The Machine Link cables connect with the Con2A controller cable CBL-30166-0001.
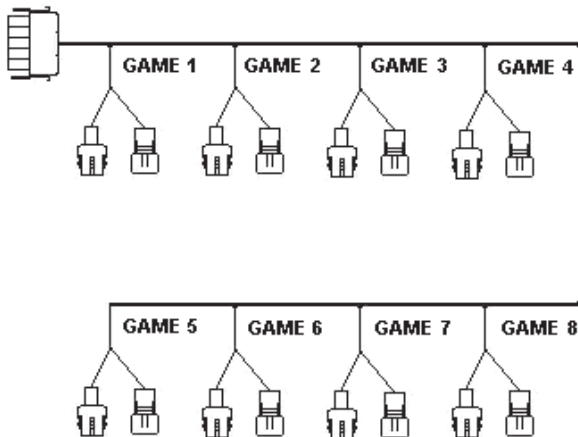
8-Machine Link Cable CBL-30166-0001
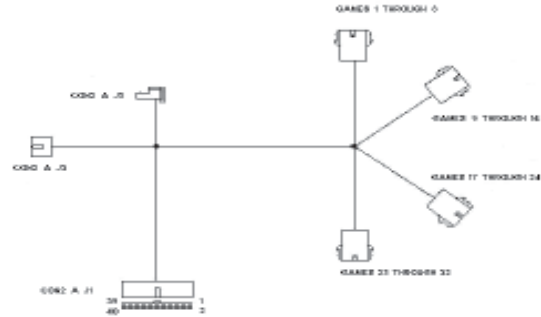
Con2A Controller Cable CBL-30166-0001

Each pair of break-outs correspond with the machine identification connection at J1 of the Con2A. The physical connection of each machine must correspond with GAME ID configured in the Progressive Configuration sub-menu.

The Con2A must be programmed according to instructions in Mikohn P.S.P. Progressive System Software Configuration and User Manual #950-051-00.

Expanded Progressive Board Assembly

The Expanded Progressive Board Assembly enables all ten games in each Game Maker® to communicate bidirectional with each controller. The following parts are included in each assembly:

Install the Expanded Progressive by orienting the mounting holes to align with the tapped pem studs located on the lower left side of the cabinet. Secure the assembly with the four 3/8" phillips screws.

Part #	Quantity	Description
A-03207-0044	1	Expand. Prog. Bd. Cover
AS-03356-0357	1	Expand. Prog. Bd.
CBL-20177-0001	1	Expand. Prog. Bd. Cable
LBL-00243-0001	1	Cover I.D. Label
MSPP-00632-1108	2	6-32X1/2" Phillips Screw
MSPP-00832-1106	4	8-32X3/8" Phillips Screw
NLS-09339-0024	2	6-32 Keps Nut
P-09339-0024	1	Expand. Prog. Plate
SAPP-00800-1108	4	1/2" Sheet Metal Screw

CBL-20177-0001 connects at J1 of the Expanded Progressive Assembly and at two locations on the Game Maker® Backplane AS-03356-0247: JPROG1 and JPIO .

Expanded Progressive Board Assembly (cont.)
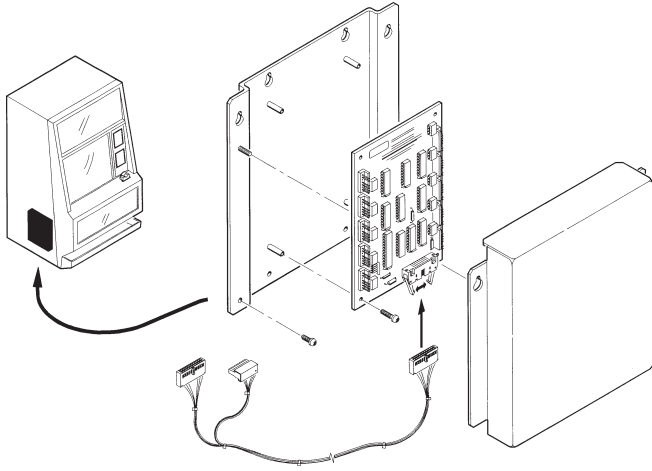
Expanded Progressive Assembly Installation

Mikohn ChamII+ Stand Alone Progressive

Diagram reference numbers refer to stand alone wiring diagram.

Part #	Quantity	Description	Diag. Ref. #
CBL-20085-0001	1	Reg 14 S/MPI Cable	3
E-00620-0662	1	4N35 Opto Isolator	2
AS-02988-0226	1	ChamII+ Ribbon Cable	9
AS-03110-0025	1	ChamII+ 12-Cell	10
CBL-30195-0001	1	ChamII+ Power Supply	6
E-01040-0022	1	ChamII+ Controller Logic Bd.	8
M-01760-0001	1	Wood Mount Super Mini	None
LSPP-00832-1110	4	Screw	None
TFPP-008832-1104	4	Screw	None

Internal Controller Operation

Game Maker® Main software development beginning with "Version 14" includes 25 independent internal single-level controllers that can be distributed among the games.

Each controller can be independently configured for a progressive jackpot or merchandise award; with standard or "Mystery" operation. HELP screens are available for configuration items.

The internal controllers may coexist with external controllers. Internal and external controllers may even be combined within a single game.
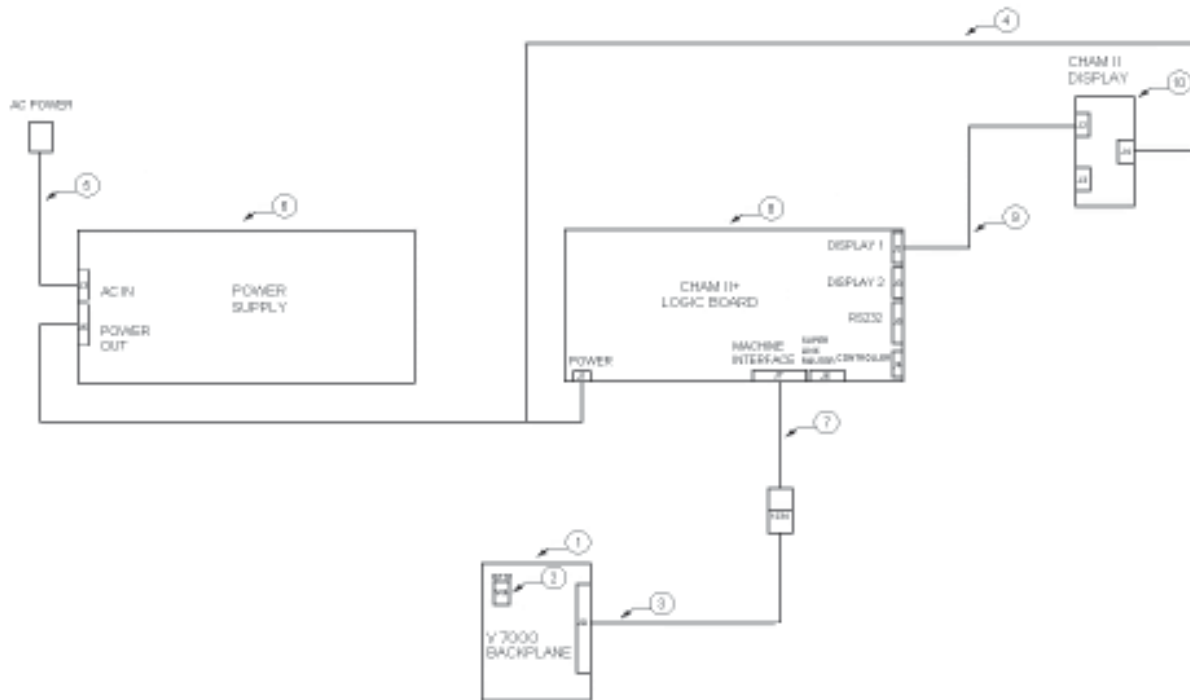
Stand Alone Wiring Diagram

Internal Controller Operation (cont.)

With additional hardware, internal controller operation includes communication support to configure the controllers with the aid of a personal computer (PC).

Internal Progressive Ceiling Amount

The Internal Progressive Ceiling Amount is the maximum value of any of the 25 controllers. It is set once after a SafeRAM™ Clear. If a progressive ceiling value has never been entered, the PROGRESSIVE sub-menu forces the operator to enter a value before any other configuration is allowed.
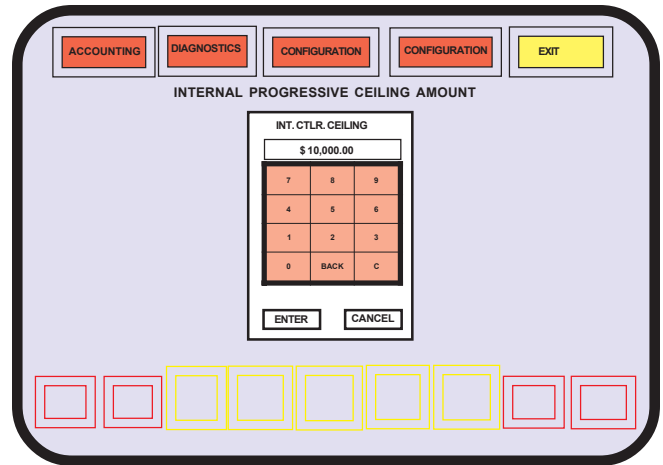
Selecting INT. PROG CEILING AMOUNT for the first time will present a numeric keypad with the default value:

10,000. A value up to nearly 43 million (16^8) can be entered by touching the appropriate areas of the keypad.

Internal Progressive Merchandise Text

Merchandise instead of a monetary value may be awarded for a winning combination or Mystery Pay. The Game Maker® can place a description of the merchandise within the pay table of any game enabled for the feature.
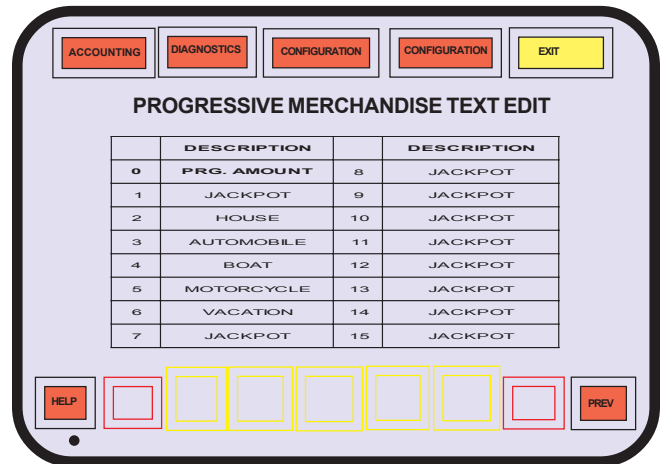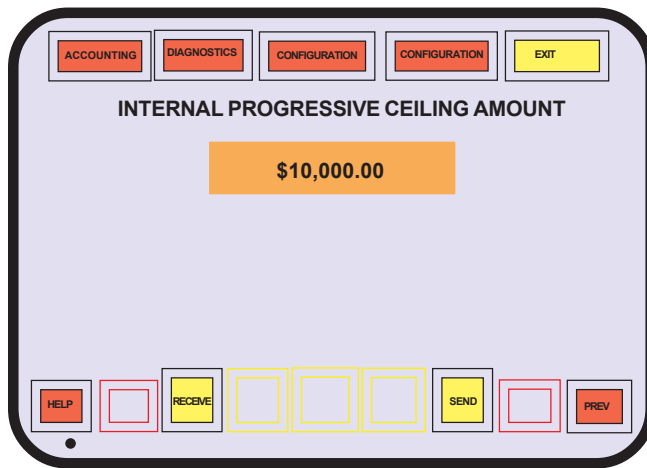
INTERNAL PROGRESSIVE CEILING AMOUNT _____

SET THE CEILING AMOUNT FOR ALL INTERNAL PROGRESSIVE CONTROLLERS. THE CEILING AMOUNT IS THE MAXIMUM VALUE WHICH ANY INTERNAL PROGRESSIVE CAN ACHIEVE. THE INTERNAL PROGRESSIVE AMOUNTS WILL BE LIMITED TO THE CEILINGS REGARDLESS OF OTHER INTERNAL PROGRESSIVE SETUP, EFFECTIVELY OVERRIDING INC.2 WHERE APPLICABLE.

THE CEILING AMOUNT CAN BE SET ONE TIME ONLY. ONCE IT IS SET, AND THE OPTION SCREEN IS CLOSED, THEN IT CAN NOT BE CHANGED UNLESS SAFERAM IS CLEARED.

WHEN ASKED TO SAVE CHANGES, THE YES BUTTON STORES THE OPTION SETTINGS, THE NO BUTTON DISCARDS CHANGES AND RELOADS CURRENT SETTING

TO CHANGE THE TEXT, TOUCH THE GRID POSITION WHICH CONTAINS THAT TEXT.

THE TEXT AT INDEX 0 IS NOT A MERCHANDISE STRING. IT IS A PLACE HOLDER ONLY, AND CAN NOT BE EDITED.

WHEN ASKED TO SAVE CHANGES, THE YES BUTTON STORES THE OPTION SETTINGS, THE NO BUTTON DISCARDS CHANGES AND RELOADS THE CURRENT SETTING.

MAKE ADJUSTMENTS TO THE STRING LENGTHS IN ORDER FOR THEM TO PROPERLY APPEAR IN THE SELECTED GAME'S PAYTABLE.

Internal Controller Operation (cont.)

MERCHANDISE TEXT 1

1	2	3	4	5	6	7	8	9	0	^
Q	W	E	R	T	Y	U	I	O	P	$	BS
A	S	D	F	G	H	J	K	L	;	'	CR
SHFT	Z	X	C	V	B	N	M	,	.	$.00	SPC

INTERNAL PROG. MERCHANDISE TEXT facilitates entering a description of a merchandise jackpot. Selecting the DESCRIPTION area of merchandise fields 1-15 will present a keyboard 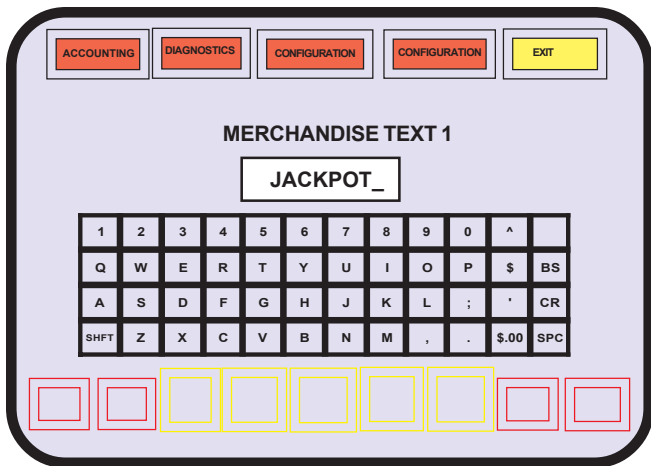for entries. The field is ten characters. BS is a destructive backspace (It erases the character as it moves the cursor back one space). SPC enters a space. SHFT adds additional characters to the keyboard.

Internal Progressive Controller Setup

SETUP INT. PROGRESSIVE sub-menu displays a configuration table for all 25 controllers. PAGE DOWN and PAGE UP navigates through the controller listing as they appear ten at a time on the screen.

TYPE

TYPE is either STD (standard) or MYST (mystery). STD is awarded for a winning combination with maximum-credit wager.

Mystery Pay (MYST) is awarded when the credits played (TOTAL IN) equals a random preselected value between the LIMIT AMT. and the BASE AMOUNT. Please see Example 2—Mystery Pay on page 7-19.

Note: DIPSW2-7 must be ON to configure or change progressive operation

INTERNAL PROGRESSIVE CONTROLLER SETUP

	TYPE	DISPLAY	LIMIT AMT.	BASE AMT.	INC.1	INC.2	HIDE INC.
1	NONE						
2	NONE						
3	NONE						
4	NONE						
5	NONE						
6	NONE						
7	NONE						
8	NONE						
9	NONE						
10	NONE						

CONFIGURE INTERNAL PROGRESSIVE CONTROLLER BY CHOOSING THE FOLLOWING:

TYPE--SELECT THE PROG. MODE (NONE, STD, MYST.).
DISPLAY--SELECT HOW THE PROG. VALUE IS PRESENTED.
BASE AMT.--STARTING VALUE FOR PROG. AMOUNT.
INC.1--PERCENTAGE OF WAGER ADDED TO PROG. AMOUNT.
INC.2--PERCENTAGE OF WAGER ADDED TO PROG. AMOUNT AFTER LIMIT IS EXCEEDED. NOT USED IN MYST. TYPE.
HIDE INC.--PERCENTAGE OF WAGER ADDED TO HIDDEN AMOUNT. NOT USED FOR MYST. TYPE.
LIMIT AMT.--MAXIMUM VALUE OF HIDDEN AMOUNT AND SWITCH POINT TO STOP USING INC.1 AND START USING INC.2.

WHEN ASKED TO SAVE CHANGES, THE YES BUTTON STORES THE OPTION SETTINGS, THE NO BUTTON DISCARDS CHANGES AND RELOADS CURRENT SETTING
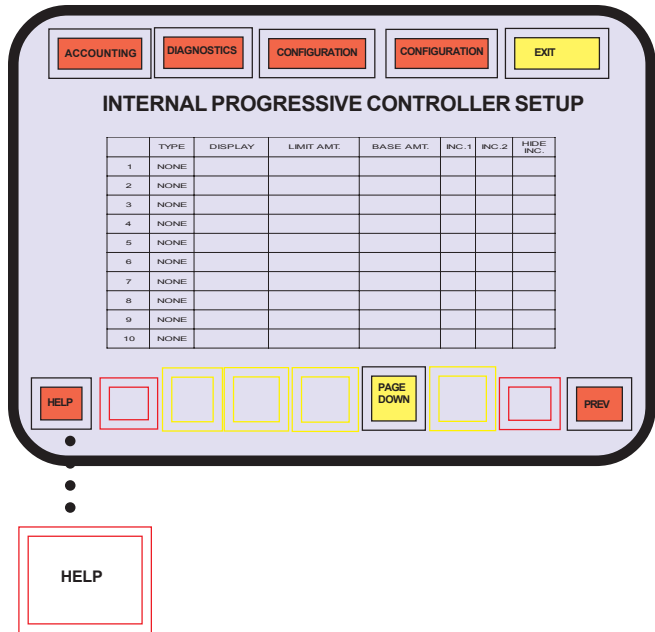
Formulae to find the *average* combined wagers to hit a Mystery Pay merchandise jackpot and the *average* value of a Mystery Pay if the jackpot is monetary:

AP=average Mystery Pay
AW=average (combined) wagers
B=BASE AMOUNT L=LIMIT AMOUNT
I=Inc.1

AP = (B + L) / 2
AW = (AP -B) / I

Internal Controller Operation (cont.)

DISPLAY

The setting for DISPLAY determines how the STD award appears in the game's paytable and in the game's icon as it appears in the Game Menu screen. For MYST, it determines the jackpot message when the award is won.

A "$" in DISPLAY indicates that PROG. AMOUNT is the selection. The decimal monetary value will show as the award. It is the default when TYPE is something other than NONE. A choice of "JACKPOT" will display as text, as will any of the other text choices. Touching the DISPLAY area for any of the controllers presents a menu of the sixteen available choices.

Inc. 1, Inc. 2, Hidden Inc.

The increment rates are expressed as decimal percentage of the credit value. For example, if the rate for a nickel machine is set at 20.00, a progressive would increase one penny for every credit played; or 20 cents for every dollar played. This increases the game percentage by 20%.

INC 1 is the rate STD and MYST increase. INC 2 is the rate STD increases after it reaches LIMIT AMT. It is not used for MYST.

HIDE. INC. is the rate of increase of a "hidden" jackpot. The hidden jackpot is the BASE AMOUNT of a STD jackpot increased at the rate of HIDE. INC. When the STD jackpot is awarded, the hidden jackpot amount becomes the current jackpot amount. The BASE AMOUNT becomes the new hidden jackpot.

LIMIT AMOUNT

For STD, the LIMIT AMT. is the value where a progressive amount increases by the rate of INC. 2. It is also the ceiling for a hidden progressive. For MYST, it is the upper boundary of a random value.

BASE AMOUNT

BASE AMOUNT is the starting value for a STD monetary progressive. It increments at the rate of INC 1 until it reaches LIMIT AMT, where it then increases at the rate of INC. 2 until it is either awarded or it reaches the INT. PROG. CEILING AMOUNT.

For MYST, it is the lower boundary of a random value and the beginning value of the unseen progressive value. The unseen value increases at the rate of INC. 1 until the progressive value matches the random value.

Selecting any of the value areas presents a numeric keypad for entry.

Edit Internal Progressive

Within the INTERNAL PROGRESSIVE CONTROLLER EDIT sub-menu. CURRENT AMT and HIDE AMT. of STD awards can be changed by selecting the respective areas. A numeric keypad will appear where values can be entered. The opportunity to save or discard changes will be available upon leaving the sub-menu. MYST values do not display and can not be changed.

Internal Controller Operation (cont.)

INTERNAL PROGRESSIVE CONTROLLER EDIT

	TYPE	DISPLAY	BASE AMT.	LIMIT AMT.	CURRENT AMT.	HIDDEN AMT.
1	NONE					
2	NONE					
3	NONE					
4	NONE					
5	NONE					
6	NONE					
7	NONE					
8	NONE					
9	NONE					
10	NONE					

HELP
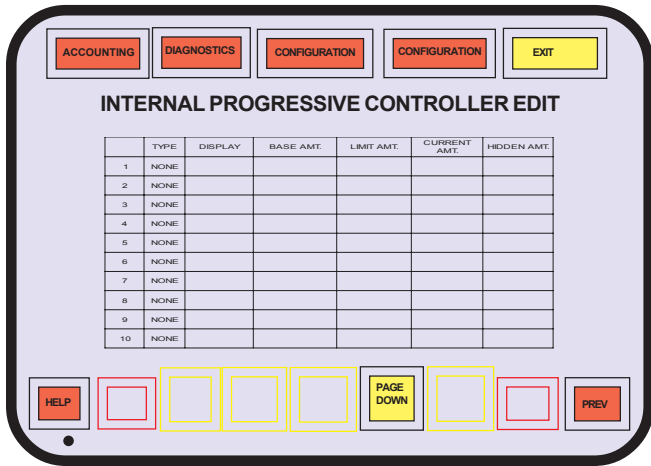
INTERNAL PROGRESSIVE CONTROLLER EDIT_____

TO CHANGE A VALUE, TOUCH THE GRID POSITION WHICH CONTAINS THAT VALUE. THE CURRENT AND HIDDEN AMOUNTS ARE EDITABLE FOR STANDARD PROGRESSIVES ONLY.

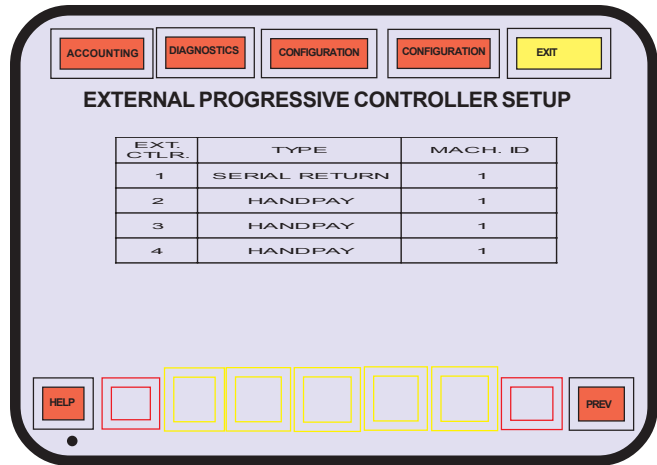CURRENT AMT.--CURRENT PAY VALUE FOR THE PROGRESSIVE. THIS VALUE INCREMENTS AT A RATE SPECIFIED BY INC.1 OR INC.2.
HIDDEN AMT.--VALUE TO LOAD INTO THE CURRENT AMT. FOLLOWING A WIN. THIS VALUE INCREMENTS AT A RATE SPECIFIED BY HIDE. INC. AND IS RESTRICTED BY LIMIT AMT..

WHEN ASKED TO SAVE CHANGES, THE YES BUTTON STORES THE OPTION SETTINGS, THE NO BUTTON DISCARDS CHANGES AND RELOADS CURRENT SETTING

External Progressive Setup

EXT. PROGRESSIVE SETUP sub-menu allows the set up of links to external controllers.   Additional hardware is required for external progressive operation.

TYPE

There are two types of external controller operation: SERIAL RETURN and HANDPAY.

SERIAL RETURN enables the machine to receive jackpot information from the controller and display the information. The machine will process the jackpot credits according to the settings in HOPPER/CREDIT LIMITS configuration area. If the amount of the jackpot does not exceed the configuration limits, no intervention is neces-

EXTERNAL PROGRESSIVE CONTROLLER SETUP

EXT. CTLR.	TYPE	MACH. ID
1	SERIAL RETURN	1
2	HANDPAY	1
3	HANDPAY	1
4	HANDPAY	1

HELP   PREV

HELP

EXTERNAL PROGRESSIVE CONTROLLER SETUP_____

CONFIGURE EACH EXTERNAL PROGRESSIVE CONTROLLER BY CHOOSING APPROPRIATE SETTINGS FOR THE FOLLOWING:

TYPE--SERIAL RETURN PROVIDES PROGRESSIVE WIN AMOUNT VIA SERIAL LINK, ALLOWING THE WIN AMOUNT TO BE PAID TO THE CREDIT METER. HANDPAY REQUIRES ATTENDANT TO MANUALLY PAY WINS.
MACH. ID--SPECIFIES THE PHYSICAL MACHINE ID TO THE EXTERNAL CONTROLLER. VALID MACHINE ID VALUES RANGE FROM 1 TO 32. THE MACHINE ID APPLIES ONLY TO EXTERNAL CONTROLLERS WHICH ARE OPTIONED FOR SERIAL RETURN.

WHEN ASKED TO SAVE CHANGES, THE YES BUTTON STORES THE OPTION SETTINGS, THE NO BUTTON DISCARDS CHANGES AND RELOADS CURRENT SETTING.

sary to pay the jackpot.

Handpay operation requires an attendant to pay and release the jackpot lockup condition.

Machine ID

MACH. ID associates the machine as one serviced by the controller. The ID must match the wiring for the external controller (consult the controller manufacturer's documentation).
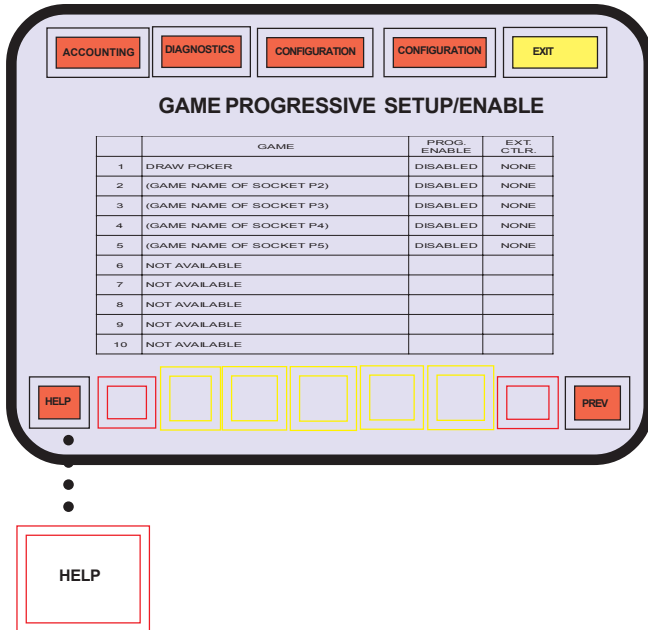
Game Setup/Enable

GAME PROGRESSIVE SETUP/ENABLE allows the games to have win levels associated with internal and external controllers. Internal and external controllers may be selected for the same game. This allows a game to be connected to an external controller for linked jackpots, and to simultaneous stand alone controllers. Each win
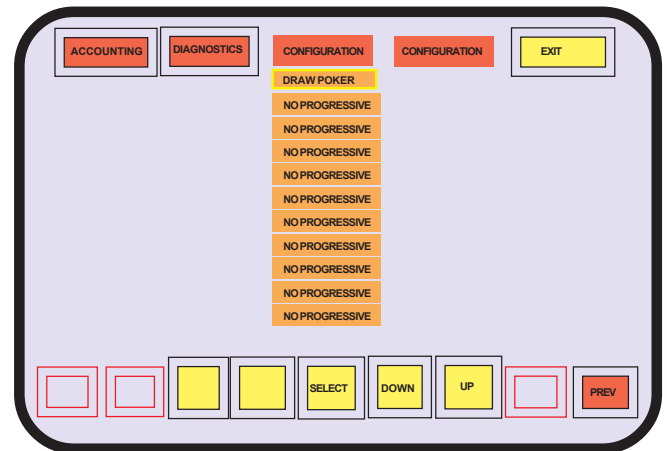
Internal Controller Operation (cont.)

level, however, can be associated to only one controller.

If an external controller is associated with the game, selecting EXT. CTLR. offers a selection of the available external controllers. If the Expanded Progressive Assembly is not installed, the controllers are 1 through 4. Controller #1 is capable of SERIAL RETURN or HANDPAY. Controllers 2-4 are capable only of HANDPAY.
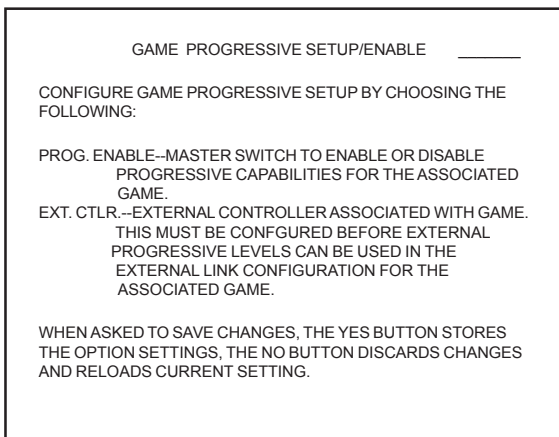

| ACCOUNTING | DIAGNOSTICS | CONFIGURATION | CONFIGURATION | EXIT |

GAME PROGRESSIVE SETUP/ENABLE

	GAME	PROG. ENABLE	EXT. CTLR.
1	DRAW POKER	DISABLED	NONE
2	(GAME NAME OF SOCKET P2)	DISABLED	NONE
3	(GAME NAME OF SOCKET P3)	DISABLED	NONE
4	(GAME NAME OF SOCKET P4)	DISABLED	NONE
5	(GAME NAME OF SOCKET P5)	DISABLED	NONE
6	NOT AVAILABLE		
7	NOT AVAILABLE		
8	NOT AVAILABLE		
9	NOT AVAILABLE		
10	NOT AVAILABLE		

HELP   PREV

HELP

GAME PROGRESSIVE SETUP/ENABLE _____

CONFIGURE GAME PROGRESSIVE SETUP BY CHOOSING THE FOLLOWING:

PROG. ENABLE--MASTER SWITCH TO ENABLE OR DISABLE PROGRESSIVE CAPABILITIES FOR THE ASSOCIATED GAME.
EXT. CTLR.--EXTERNAL CONTROLLER ASSOCIATED WITH GAME. THIS MUST BE CONFGURED BEFORE EXTERNAL PROGRESSIVE LEVELS CAN BE USED IN THE EXTERNAL LINK CONFIGURATION FOR THE ASSOCIATED GAME.

WHEN ASKED TO SAVE CHANGES, THE YES BUTTON STORES THE OPTION SETTINGS, THE NO BUTTON DISCARDS CHANGES AND RELOADS CURRENT SETTING.

Win Level Setup

WIN LEVEL SETUP allows the association of any winning combination of any game to any controller. Each game may associate up to 12 links.

When WIN LEVEL SETUP is selected, a listing of games is presented. Select the desired game and the winning combinations is presented in high-to-low order.

To associate winning combinations, select the area under INT. PROG. CTLR or EXT. PROG. LEVEL.

| ACCOUNTING | DIAGNOSTICS | CONFIGURATION | CONFIGURATION | EXIT |

DRAW POKER
NO PROGRESSIVE
NO PROGRESSIVE
NO PROGRESSIVE
NO PROGRESSIVE
NO PROGRESSIVE
NO PROGRESSIVE
NO PROGRESSIVE
NO PROGRESSIVE
NO PROGRESSIVE

SELECT   DOWN   UP   PREV

Note: SERIAL RETURN is offered for controllers 2-4 even though they will not support the selection.

Controller #1 requires additional hardware for SERIAL RETURN. Please refer to the hardware listing on page 7-5.

Internal Progressive Controller

When INT. PROG. CTLR next to the winning combination is selected, a listing of the available controllers is presented.

External Progressive Controller

When EXT. PROG LEVEL next to the winning combination is selected, the opportunity to associate the winning combination to a choice of levels 0-7 is presented. Most controllers are multilevel controllers with 0 usually the top award. Consult the controller manufacturer's documentation for more information.

Internal Controller Operation (cont.)

	ACCOUNTING	DIAGNOSTICS	CONFIGURATION	CONFIGURATION	EXIT

PROGRESSIVE WIN LEVEL SETUP

	DRAW POKER, WIN LEVELS	INT. PROG. CTLR.	EXT. PROG. LEVEL
1	ROYAL FLUSH	NONE	NONE
2	STRAIGHT FLUSH	NONE	NONE
3	FOUR OF A KIND	NONE	NONE
4	FULL HOUSE	NONE	NONE
5	FLUSH	NONE	NONE
6	STRAIGHT	NONE	NONE
7	THREE OF A KIND	NONE	NONE
8	TWO PAIR	NONE	NONE
9	JACKS OR BETTER	NONE	NONE

HELP   PREV

HELP

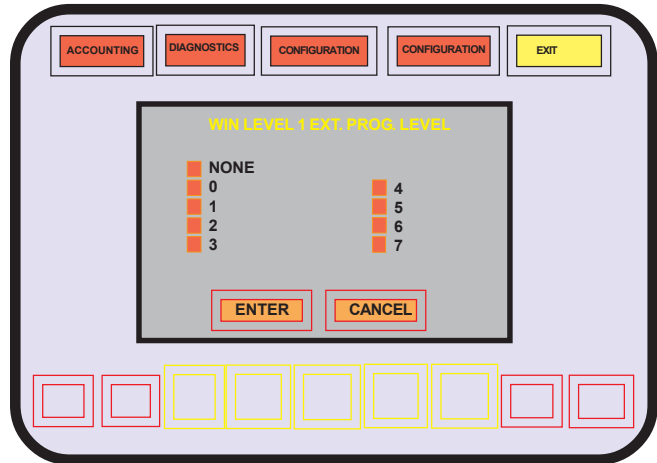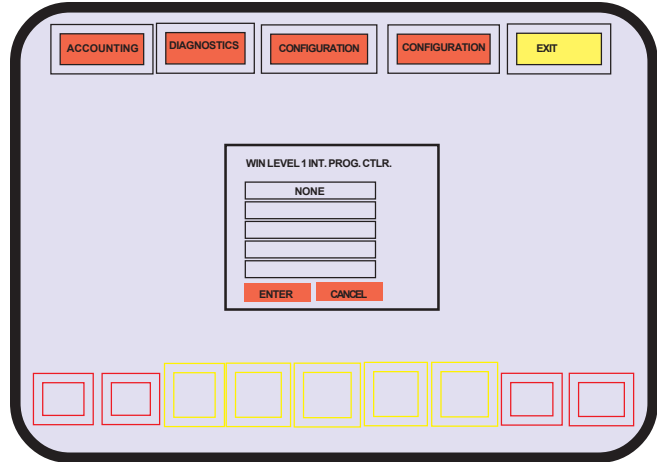---
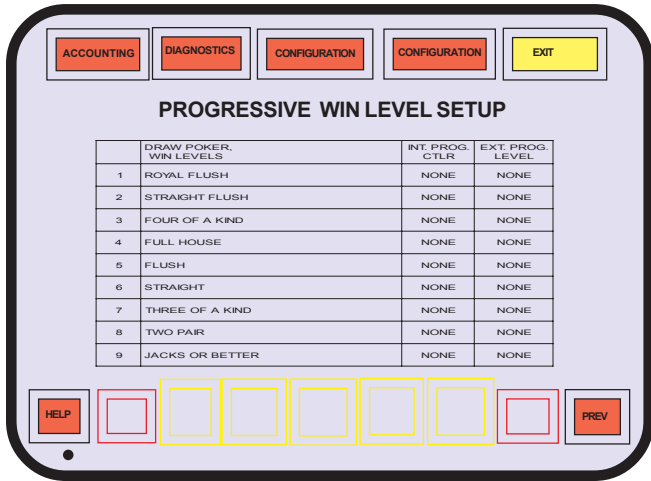
PROGRESSIVE WIN LEVEL SETUP___   _____

CONFIGURE GAME WIN LEVEL LINKS TO PROGRESSIVE BY ASSIGNING A LINK BETWEEN THE GAME WIN LEVEL AND AN INTERNAL PROGRESSIVE CONTROLLER OR AN EXTERNAL PROGRESSIVE LEVEL, BUT NOT BOTH.

INT. PROG. CTLR.--EXTABLISHES A LINK BETWEEN THE GAME
    WIN LEVEL AND THE INTERNAL PROGRESSIVE
    CONTROLLER. ONLY INT. PROG. CONTROLLERS OF TYPE
    STD ARE AVAILABLE.
EXT. CTLR. LEVEL--ESTABLISHES A LINK BETWEEN THE GAME
    WIN LEVEL AND THE EXTERNAL PROGRESSIVE
    CONTROLLER LEVEL. EXT. PROG. LINKS ARE AVAILABLE
    ONLY IF AN EXT. PROG. CONTROLLER HAS BEEN
    ASSIGNED TO THIS GAME.

EACH GAME IS ALLOWED A MAXIMUM OF 12 WIN LEVEL LINKS. THESE WIN LEVEL LINKS ARE SHARED BY BOTH THE GAME WIN LEVEL CONFIGURATION AND THE MYSTERY WIN CONFIGURATION.

WHEN ASKED TO SAVE CHANGES, THE YES BUTTON STORES THE OPTION SETTINGS, THE NO BUTTON DISCARDS CHANGES AND RELOADS CURRENT SETTING.

	ACCOUNTING	DIAGNOSTICS	CONFIGURATION	CONFIGURATION	EXIT

WIN LEVEL 1 INT. PROG. CTLR.

NONE

ENTER   CANCEL

	ACCOUNTING	DIAGNOSTICS	CONFIGURATION	CONFIGURATION	EXIT

WIN LEVEL 1 EXT. PROG. LEVEL

NONE   4
0   5
1   6
2   7
3

ENTER   CANCEL

Mystery Setup

The MYSTERY SETUP sub-menu allows enabling a game for Mystery jackpot operation. The controllers configured for MYST operation will be available to associate with each enabled game with a YES or NO.

When MYSTERY SETUP is selected, a listing of games is presented (identical to WIN SETUP LEVEL on page 7-12). Select the desired game and a listing of MYST controllers, DISPLAY, BASE AMT., and LIMIT AMT. is shown. The opportunity to enable each MYST controller is offered.

Internal Controller Operation (cont.)

DRAW POKER MYSTERY PROGRESSIVE WIN SETUP

ACCOUNTING | DIAGNOSTICS | CONFIGURATION | CONFIGURATION | EXIT

DISPLAY | BASE AMT. | LIMIT AMT. | MYSTERY ENABLE

HELP | PAGE DOWN | PREV

HELP

MYSTERY PROGRESSIVE WIN SETUP_____

CONFIGURE MYSTERY PROGRESSIVE WINS BY ASSIGNING A
LINK BETWEEN THE GAME AND THE INTERNAL PROGRESSIVE
CONTROLLERS WHICH ARE OPTIONED TO THE MYST TYPE.

MYSTERY ENABLE--SET TO YES TO ASSIGN A LINK BETWEEN
THE GAME AND THE ASSOCIATED INTERNAL
PROGRESSIVE CONTROLLER. SET TO NO TO DISABLE
THE LINK TO THE ASSOCIATED INTERNAL PROGRESSIVE
CONTROLLER.

EACH GAME IS ALLOWED A MAXIMUM OF 12 WIN LEVEL LINKS.
THESE WIN LEVEL LINKS ARE SHARED BY BOTH THE GAME WIN
LEVEL CONFIGURATION AND THE MYSTERY WIN
CONFIGURATION.

WHEN ASKED TO SAVE CHANGES, THE YES BUTTON STORES
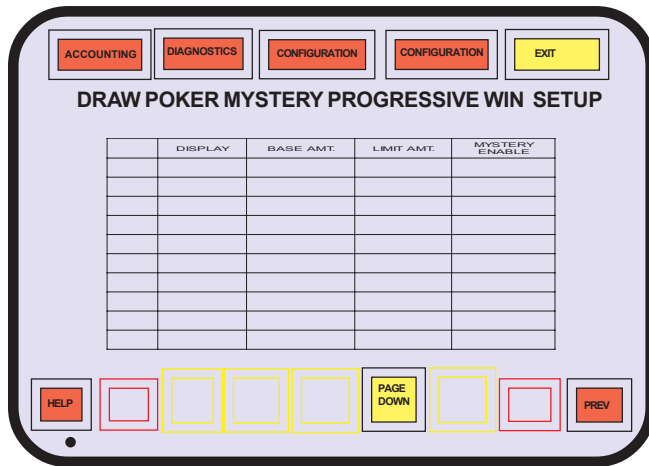THE OPTION SETTINGS, THE NO BUTTON DISCARDS CHANGES
AND RELOADS CURRENT SETTING

Progressive Controller Data Transfer and Progressive Game Data Transfer

With the optional PC Connectivity Kit (Part # K-00694-0577), Internal Controller configuration can be accomplished with aid of a computer.

Controller information can be copied and stored on disk, or transferred to another Game Maker®.

The computer must have an RS-232 port and the availability of a communication program that supports the YMODEM protocol.

The PC Connectivity Kit consists of the following

two parts: RS-232 Interface Cable (CBL-30212-0001), and RS-232 Interface Board (AS-03356-0375).

Installing PC Connectivity Kit K-00694-0577

The 20-circuit housing Ⓐ of the interface cable connects into the Game Maker® Backplane Board at JEXP. The 5-circuit MTA-100 Ⓒ of the cable connects at RXTX of the Backplane.

The other 20-circuit housing Ⓑ of the interface cable connects at J1 of the included RS-232 Interface Board. The 8-circuit MTA-100 Ⓓ connects at J3 of the interface board.

The toggle switch within the interface cable changes between YMODEM and a proprietary protocol. Position the toggle away from the orientation groove of the switch to select the YMODEM protocol.

CBL-30212-0001
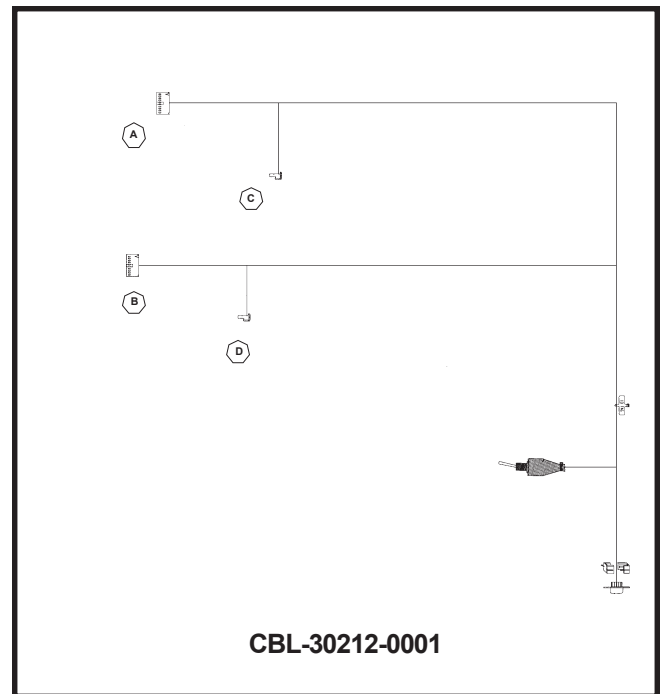
The DB9 connects to the serial port of a PC (Computer and cable is not included). Consult the manufacturer of the PC for more information about the serial port.

Progressive Controller Data Transfer

Using a communications program that supports YMODEM protocol running on the PC, set the communication speed for 9600 baud, 8 data bits, 1 stop bit, and no parity. If flow control is selectable, choose NONE.

The information is transferred in tab-delimited ASCII. Files can be transferred to the PC where they can be edited, then transferred back to the machine. Use upper case for all text fields.

Progressive Controller Data Transfer and Progressive Game Data Transfer (cont.)

LINE #	DISPLAY #	TEXT FIELD
1	REM	ID	Terminal ID: 0000, Serial No.: 14-0000 DATE 04:15:47 01/05/91
2	D0	1	JACKPOT
3	D0	2	HOUSE
4	D0	3	AUTOMOBILE
5	D0	4	BOAT
6	D0	5	MOTORCYCLE
7	D0	6	VACATION
8	D0	7	JACKPOT
9	D0	8	JACKPOT
10	D0	9	JACKPOT
11	D0	10	JACKPOT
12	D0	11	JACKPOT
13	D0	12	JACKPOT
14	D0	13	JACKPOT
15	D0	14	JACKPOT
16	D0	15	JACKPOT

The file transferred In PROGRESSIVE CONTROLLER DATA TRANSFER is "ctlr.dat."

The following is a file with default settings after a SafeRAM™ Clear.

CTLR.DAT

LINE #		#	TYPE	DISPLAY	BASE	LIMIT	INC1	INC2	HIDE INC.	CURRENT AMOUNT	HIDDEN AMOUNT
17	IO	1	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
18	IO	2	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
19	IO	3	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
20	IO	4	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
21	IO	5	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
22	IO	6	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
23	IO	7	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
24	IO	8	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
25	IO	9	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
26	IO	10	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
27	IO	11	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
28	IO	12	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
29	IO	13	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
30	IO	14	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
31	IO	15	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
32	IO	16	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
33	IO	17	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
34	IO	18	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
35	IO	19	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
36	IO	20	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
37	IO	21	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
38	IO	22	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
39	IO	23	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
40	IO	24	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00
41	IO	25	NONE	0	0.00	0.00	0.0000	0.0000	0.0000	0.00	0.00

ACCOUNTING **DIAGNOSTICS** **CONFIGURATION** **CONFIGURATION** **EXIT**

PROGRESSIVE CONTROLLER DATA TRANSFER

DATA TRANSFER STATUS

HELP **RECEIVE** **SEND** **PREV**

HELP

PROGRESSIVE CONTROLLER DATA TRANSFER _____

TRANSFER PROGRESSIVE CONTROLLER RELATED PROGRESSIVE DATA TO OR FROM EXTERNAL DEVICE.

THE SERIAL TRANSFER REQUIRES THE YOMODEM PROTOCOL SET TO 9600 BAUD, 8 DATA BITS, NO PARITY, AND 1 STOP BIT. ALL DATA MUST BE IN TAB DELIMITED FORMAT.

THE RECEIVE BUTTON WILL ACCEPT A PROGRESSIVE CONTROLLER DATA FILE. THE DATA FILE IS VALIDATED FOR CONTENT BEFORE PROMPTING TO SAVE DATA. THE OPERATOR MUST THEN CHOOSE TO SAVE THE CHANGES OR ABANDON THEM. IF THE DATA FILE HAS ANY ERRORS IN IT, THE FILE WILL BE ABANDONED.

THE SEND BUTTON WILL TRANSMIT A PROGRESSIVE CONTROLLER DATA FILE

A TRANSFER MAY BE CANCELLED AT ANY TIME WITH THE CANCEL BUTTON.

Many commercial spreadsheet, word processing, or data base management programs support tab-delimited file formats.

Note: Neither line numbers nor headings are actually included in ctlr.dat. They are included here for clarity.

Line one of ctlr.dat is a REMarks field. Changes here will have no effect on the controllers.

Lines 2-16 is information that can also be accessed through PROGRESSIVE MERCHANDISE TEXT EDIT.

Progressive Controller Data Transfer and Progressive Game Data Transfer (cont.)

LINE #	EXTERNAL #		TYPE	MACHINE ID
42	XO	1	SERIAL RETURN	1
43	XO	2	SERIAL RETURN	1
44	XO	3	SERIAL RETURN	1
45	XO	4	SERIAL RETURN	1
46	XO	5	SERIAL RETURN	1
47	XO	6	SERIAL RETURN	1
48	XO	7	SERIAL RETURN	1
49	XO	8	SERIAL RETURN	1
50	XO	9	SERIAL RETURN	1
51	XO	10	SERIAL RETURN	1

Lines 17-41 list information about the internal controllers that can also be accessed in INTERNAL PROGRESSIVE CONTROLLER SETUP and INTERNAL PROGRESSIVE CONTROLLER EDIT.

Lines 42-51 list information about the external controllers that can also be accessed in EXTERNAL PROGRESSIVE CONTROLLER SETUP.

LINE #	EPROM SOCKET P#	INTERNAL CONTROLLER	EXTERNAL CONTROLLER			
1	REM	ID	Terminal	ID: 0000,	Serial No.:14-000000 ,	DATE 04:16:25	01/05/91
2	G0	1	DISABLED	NONE		
3	G0	2	DISABLED	NONE		
4	G0	3	DISABLED	NONE		
5	G0	4	DISABLED	NONE		
6	G0	5	DISABLED	NONE		
7	G0	6	DISABLED	NONE		
8	G0	7	DISABLED	NONE		
9	G0	8	DISABLED	NONE		
10	G0	9	DISABLED	NONE		
11	G0	10	DISABLED	NONE		

Progressive Game Data Transfer

The file transferred In PROGRESSIVE GAME DATA TRANSFER is "game.dat."

The following is a file with default settings after a SafeRAM™ Clear.

GAME.DAT

LINE #	EPROM SOCKET P#	LINK #	WIN LEVEL	INTERNAL PROGRESSIVE	EXTERNAL PROGRESSIVE
12	W0	1	1	0	NONE	NONE
13	W0	1	2	0	NONE	NONE
14	W0	1	3	0	NONE	NONE
15	W0	1	4	0	NONE	NONE
16	W0	1	5	0	NONE	NONE
17	W0	1	6	0	NONE	NONE
18	W0	1	7	0	NONE	NONE
19	W0	1	8	0	NONE	NONE
20	W0	1	9	0	NONE	NONE
21	W0	1	10	0	NONE	NONE
22	W0	1	11	0	NONE	NONE
23	W0	1	12	0	NONE	NONE

LINE #	EPROM SOCKET P#	LINK #	WIN LEVEL	INTERNAL CONTROLLER	EXTERNAL CONTROLLER
24	W0	2	1	0	NONE	NONE
..	W0	..	..	..	..	..
36	W0	3	1	0	NONE	NONE
..	W0	..	..	..	..	..
120	W0	10	1	0	NONE	NONE
..	W0	..	..	..	..	..
131	W0	10	12	0	NONE	NONE

Line one of game.dat is a REMarks field. Changes here will have no effect on the games. The information listed in lines 2-11 can also be accessed in GAME SETUP/ ENABLE.

Lines 12-23 list information about the game installed in Personality game socket P1. The information can also be accessed in WIN LEVEL SETUP.

The next 108 lines of game.dat list the information for EPROM sockets P2-P10.

Progressive Controller Data Transfer and Progressive Game Data Transfer (cont.)

Communication Test

COMMUNICATION TEST provides visual access to external progressive communication channels. A choice of the eight win levels can be selected for any of the external controllers.

COIN or MAX COIN, and a level can be selected for one of the ten controllers. SEND COIN will activate the choice. SEND JACKPOT will send a winning combination with the appropriate number of credits wagered to the external controller's level selected.

Jackpot information received from the external controller appears in column #2 beside the game socket number. NO DATA indicates no jackpot information is received from the external controller.

Examples

Example 1 --Two Standard Jackpots

In this example we will enable two jackpots for a $0.05 Draw Poker game. One jackpot is a progressive jackpot for a royal flush that begins at $200. The amount will not exceed $10,000.00. The progression rate will be 1.5% until the amount reaches $250.00. Thereafter, the rate will be .5%.
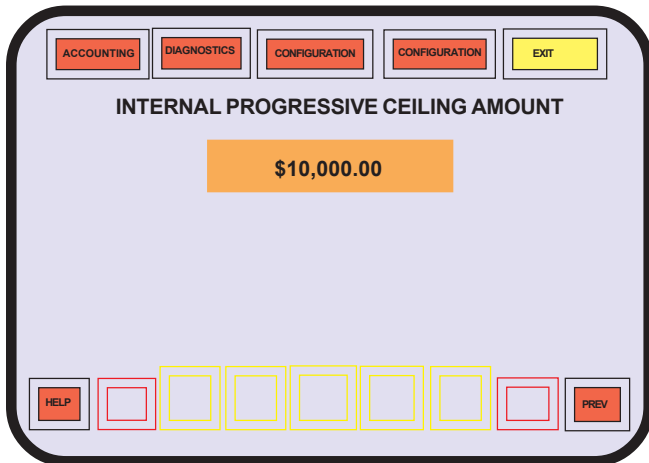
The second award on the same Draw Poker game is a silk jacket for any four of a kind.

Procedure:
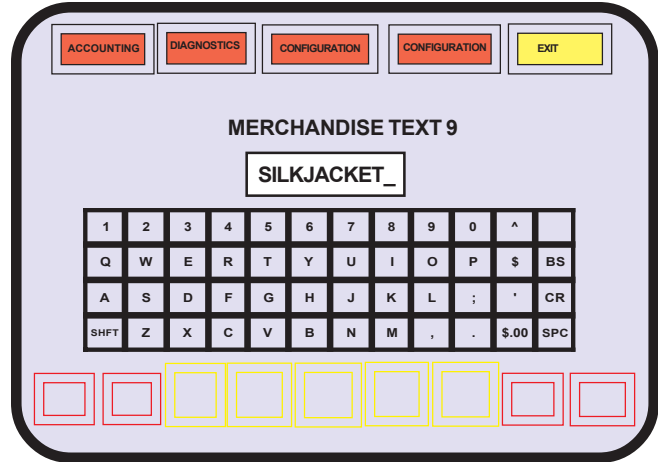
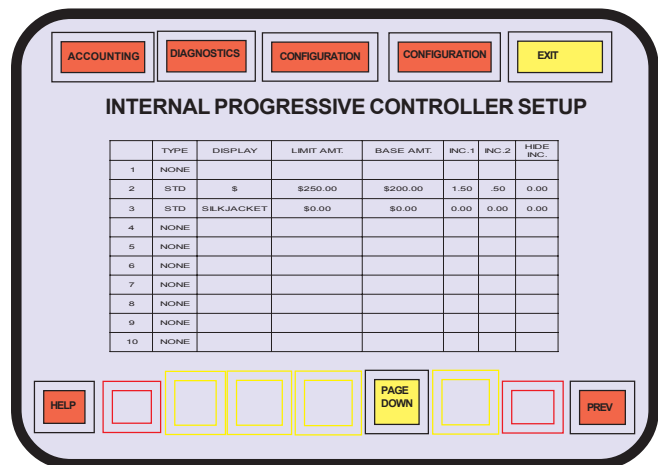DIPSW2-7 must be ON. Activate the Audit Key-

switch with the Main Door open to enter the Audit Key menu. Select PROGRESSIVE in the CONFIGURATION area of the menu.

Step 1. Select INT. PROG. CEILING AMOUNT. If the value has not been previously entered, a keypad will be presented. The default value of $10,000.00 will be in the display, awaiting confirmation for entry. If the Ceiling has been previously entered, the current value will display. A SafeRAM™ Clear is required to change. None of the available 25 internal progressive jackpots will be able to exceed this value.

Step 2. Select INT. PROG. MERCHANDISE TEXT. Because one of the awards is a jacket rather than a progressive amount, a description of the item will be entered so that it will appear in the paytable of the game.

A silk jacket is not one of the default items available, so it will have to be entered into one of the 15 avail-

able areas that will accept text input. Any text field could be chosen; but we will select #9, which currently contains the default text "JACKPOT."

Once selected, a keyboard appears. BS will backspace and erase one character at a time. By creative

Examples (cont.)

abbreviation to fit into the ten available spaces, Silk Jacket will appear as "SILKJACKET".

Select PREV. SAVE CHANGES? appears. Select YES, then PREV to return to the configuration sub-menu.

Step 3. Select SETUP INT. PROGRESSIVE to configure the behavior of the progressive (TYPE), format of the display (DISPLAY), the switch amount (LIMIT AMT.), BASE AMT, and the incrementation rates.
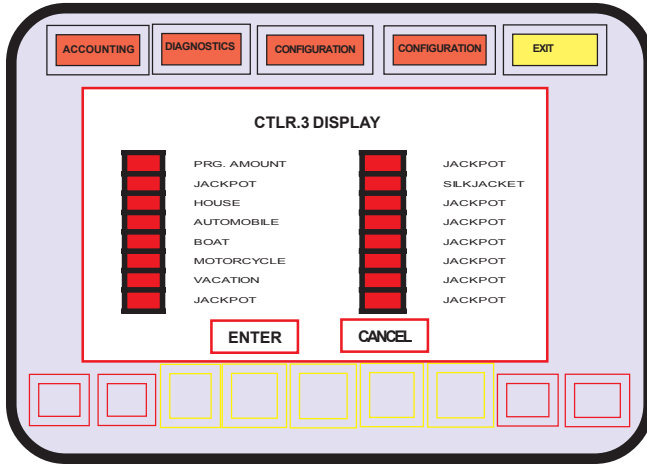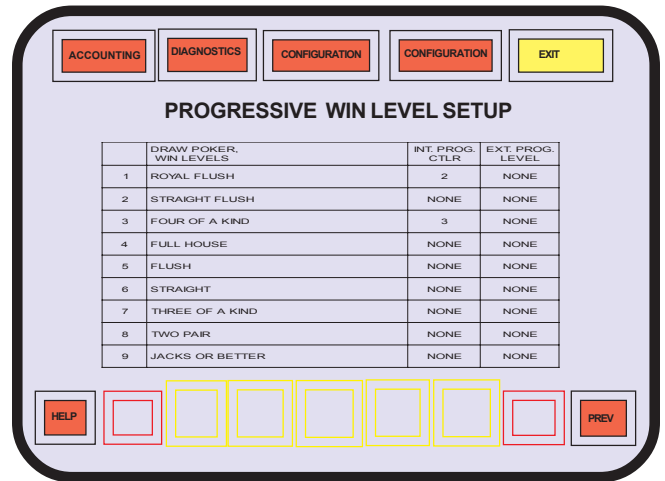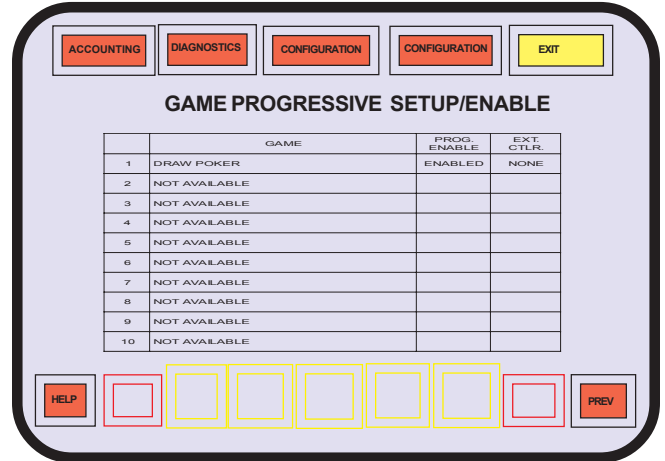

While in SETUP INT. PROGRESSIVE, we could assign any of the 25 available controllers, but for our example we will choose #2. The behavior (TYPE) of the progressive will be STD.

The format of the progressive DISPLAY will be "$", the jackpot value in dollars and cents incorporated into the pay table of our poker game. The switch amount (LIMIT) is $250.00. The BASE is $200.00. INC. 1 is 1.50, which will increment the progressive amount three cents for every two dollars played until the progressive amount reaches $250.00. INC. 2 is .50, which will increment the progressive one penny for every two dollars played after
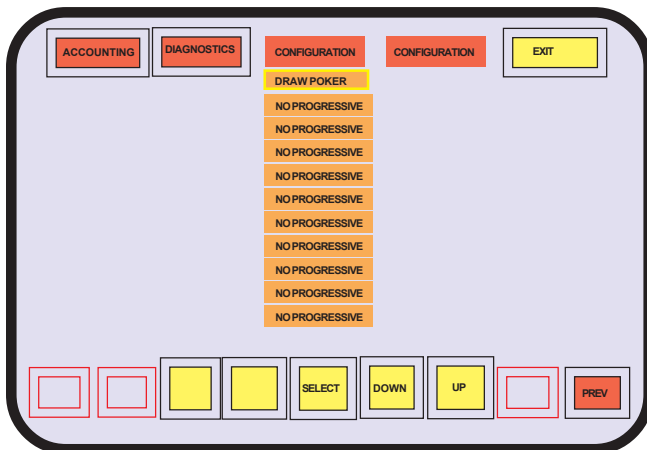
the progressive amount reaches $250.00. We will not use a hidden jackpot, so HIDE INC. will remain at 0.00.

The Silk Jacket can be associated with any of the remaining available controllers. We will assign it to con-

troller #3 in a manner similar to the preceding steps.

The TYPE will be STD. DISPLAY will be SILKJACKET (text item #9 set up in step 2.). LIMIT AMT., BASE AMT, and the INC values will not apply because the jackpot will be merchandise instead of a "progressed" monetary award.
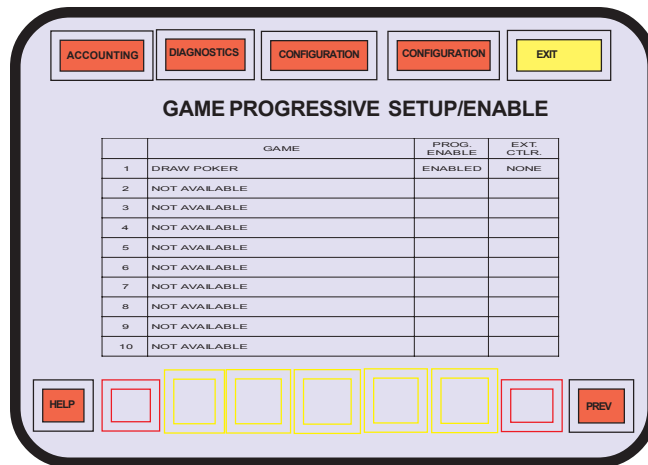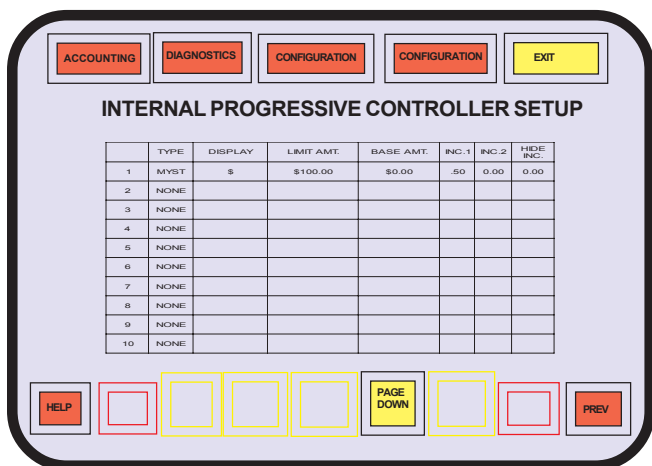
Select PREV, then YES to save changes and return to configuration menu.

Step 4. Select GAME SETUP ENABLE. A listing of the installed games will appear. Choose PROG. ENABLE that corresponds with the Draw Poker to enable the game for internal controller operation.

Examples (cont.)

Step 5. Select WIN LEVEL SETUP and choose the Draw Poker game. The winning combinations are listed in order. Select INT. PRG CTLR. corresponding with the Royal Flush, and assign it to #2 (the controller set up in step 3.). Select the area that corresponds with the four of a kind, and assign it to #3 (also set up in step 3.).

Step 6. Power OFF. Turn DIPSW2-7 OFF, then power ON. Confirm the poker game has a progressive amount within the game icon, and the paytable of the game displays SILKJACKET and the progressive amount when maximum credits are wagered.

| ACCOUNTING | DIAGNOSTICS | CONFIGURATION | CONFIGURATION | EXIT |

GAME PROGRESSIVE SETUP/ENABLE

	GAME	PROG. ENABLE	EXT. CTLR.
1	DRAW POKER	ENABLED	NONE
2	NOT AVAILABLE		
3	NOT AVAILABLE		
4	NOT AVAILABLE		
5	NOT AVAILABLE		
6	NOT AVAILABLE		
7	NOT AVAILABLE		
8	NOT AVAILABLE		
9	NOT AVAILABLE		
10	NOT AVAILABLE		

| HELP | | | | | | | PREV |

| ACCOUNTING | DIAGNOSTICS | CONFIGURATION | CONFIGURATION | EXIT |

INTERNAL PROGRESSIVE CONTROLLER SETUP

	TYPE	DISPLAY	LIMIT AMT.	BASE AMT.	INC.1	INC.2	HIDE INC.
1	MYST	$	$100.00	$0.00	.50	0.00	0.00
2	NONE						
3	NONE						
4	NONE						
5	NONE						
6	NONE						
7	NONE						
8	NONE						
9	NONE						
10	NONE						

| HELP | | | | PAGE DOWN | | | PREV |

| ACCOUNTING | DIAGNOSTICS | CONFIGURATION | CONFIGURATION | EXIT |

DRAW POKER MYSTERY PROGRESSIVE WIN SETUP

	DISPLAY	BASE AMT.	LIMIT AMT.	MYSTERY ENABLE
1	$	$100.00	$0.00	YES

| HELP | | | | PAGE DOWN | | | PREV |

Example 2 - Mystery Pay

In this example we will enable a Mystery Pay for the same machine in example 1. The payment will show in WIN PAID of the Draw Poker game that has incremented a hidden value to the random Mystery Pay.

The payment will range between 0 and $100, which means that the average award over time will be about $50. The hidden value will increase at the rate of one penny for every two dollars wagered, which means that the average wagers before the Mystery Pay is $10,000.

Procedure:

DIPSW2-7 must be ON. Activate the Audit Keyswitch with the Main Door open to enter the Audit Key menu. Select PROGRESSIVE in the CONFIGURATION area of the menu.

Step 1. Select SETUP INT. PROGRESSIVE to configure the TYPE, DISPLAY, LIMIT AMT., BASE AMT., and the rates. We will choose controller #1 to configure.

Type is MYST. DISPLAY is PROG. AMOUNT as indicated by "$." This means that the player will be awarded a monetary value that will appear in WIN PAID when the jackpot is won.

LIMIT AMT. is $100.00, which is the upper boundary for the random value of the Mystery jackpot.

BASE AMT. will be $0.00, which is the lower boundary of the random value and the starting point of the progressing value.

INC.1 is .50, which is the rate of increase of the progressing value. INC.2 and HIDE INC. have no effect on the MYST operation.

Step 2. Select GAME SETUP ENABLE. A listing of the installed games will appear. Choose PROG. ENABLE that corresponds with the Draw Poker to enable the game for internal controller operation.

Step 3. Select MYSTERY WIN SETUP. The listing of installed games will appear again as in step 2. Choose Draw Poker from the list. A listing of the controllers configured for Mystery Operation appears (which will be only the one we configured in Step 1). A confirmation of YES will assign the controller to the Draw Poker game.

Step 4. Power OFF. Turn DIPSW2-7 OFF, then power ON. Confirm that the game icon shows the Mystery amount on the Game Menu screen.