



**MIKOHN**<sup>®</sup>

*Winning Solutions...Worldwide*

# **SUPREME DISPLAY<sup>™</sup>**

# **User Manual**

**P.N. 990-241-40**

**August 30, 2000**

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### **SYSTEMS**

Heralded as the dominant leader in progressive jackpot systems, Mikohn continues to expand its offerings of sophisticated electronic systems to include the linking of multi-site casinos, advanced management information and player tracking innovations, related module enhancements, and bonusing technology.

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### **EQUIPMENT SALES**

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## 1. Overview

Casinos constantly look for ways to attract customers. One way they do this is by having exciting games and eye-catching displays. Displays that present continuously increasing jackpot amounts and celebrate jackpot wins with high-resolution graphics and stimulating sounds create excitement and attract players. Mikohn offers state-of-the-art display products, such as the SUPREME, that are designed to help you draw attention to slot machines and create a stimulating, fun environment.

All displays consist of three main elements: the display (also referred to as meter), a power supply, and a logic board. The capability of the logic board determines what and how something appears on the display. The SUPREME logic board supports linked progressives for all major slot machines, and enables dazzling display effects and graphics that capture player attention.

The SUPREME receives progressive jackpot information from the controller and displays it. It also controls jackpot celebrations, displaying graphics and text when a machine hits a jackpot. Several SUPREME logic boards can connect to one controller enabling you to display jackpot amounts in several locations of a casino at the same time. When you combine several of these progressive display systems, with the MIKOHN SUPERLINK system, you can manage and monitor multi-site progressives from one central location. This provides you constant information on how your progressives are doing.

The SUPREME can display MIKOHN-formatted graphics files that you download to it, as well as show jackpot information in exciting fonts, such as 3D numbers that rotate or flip. These capabilities allow you to create a unique for your casino and attract customers to a particular bank of machines.

This document describes how to configure and use the SUPREME display, including how to configure and use it. This manual replaces the *SUPREME Display User Manual, P.N. 990-015-02*.

## 2. SUPREME Hardware

The SUPREME logic board, **P.N. 321-035-00**, provides the power, memory, and interfacing and configuring capability for the display. Figure 2.1 shows the SUPREME board and identifies the location of connectors, status LEDs, memory, and configuration switches.

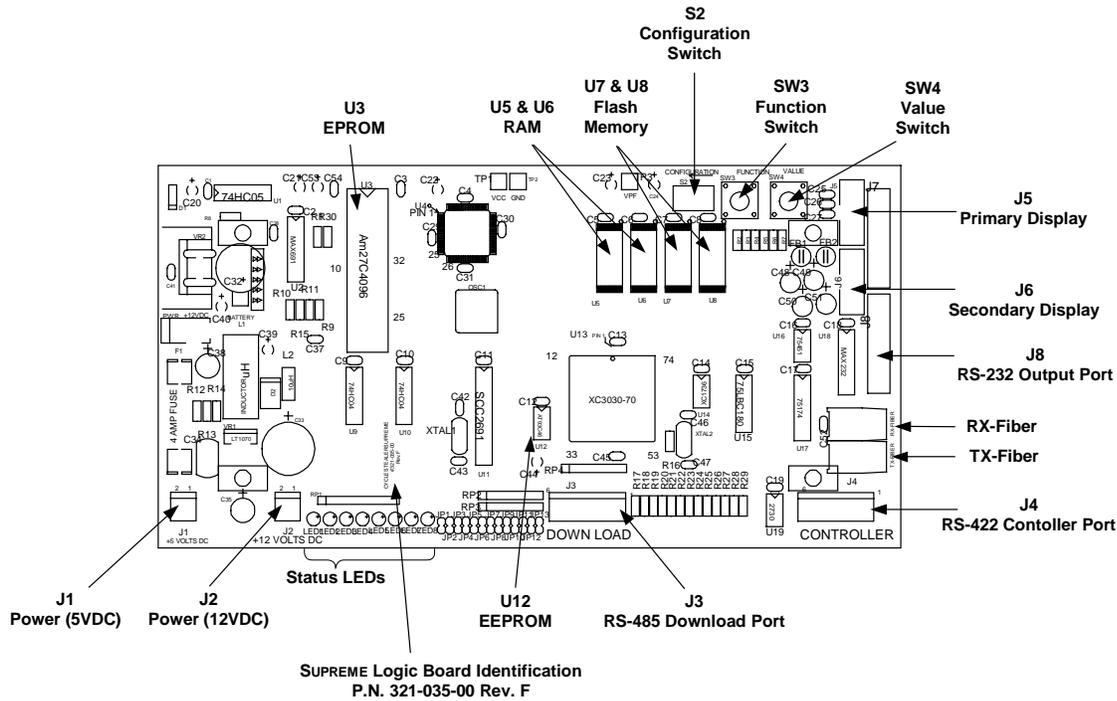


Figure 2.1 *SUPREME logic board*

## 2.1 Connector Ports

As shown in Figure 2.1, the SUPREME logic board has 9 connector ports—J1 through J8. Table 2.1 lists the pinout information for each connector port.

- J1, Power: receives power (5 volt DC) for the SUPREME circuitry.
- J2, Power: receives power (12 volt DC) for the SUPREME circuitry.

---

### NOTE

Use the appropriate power input jack for the power source.

---

- J3, RS-485 Download Port: I/O port that uses a 6-pin IDC connector to daisy chain one SUPREME to another. You can set the download port baud rate to 2400, 4800, 9600 or 19200.
- J4, RS-422 Controller Port: I/O port that uses a 6-pin IDC connector to daisy chain one SUPREME to another. This port is fixed at 9600 baud. The TX-Fiber, RX-Fiber, and RS-422 for this port become disabled if J8 has pins 1 and 5 jumped.
- J5, Primary Display: Outputs to the primary display.
- J6, Secondary Display: Outputs to the secondary display.
- J7, Display: The SUPREME uses the J7 port in a table game configuration. This port performs the same functions as the J5 and J6 ports together.
- J8, RS-232 Output Port: Connects to a sound device (pins 1 and 5 should not be jumped). This port is fixed at 9600 baud.

Table 2.1 *Supreme pinout information*

Pins	Connector Ports							
	J1	J2	J3	J4	J5	J6	J7	J8
1	GRND	GRND	GRND	GRND	GRND	GRND	LCLK_BOT	CD
2	5vDC	9-12 vDC	TX+	TXDI+	BLANK	BLANK	LDATA	TXDC
3			TX-	TXDI-	GRND	GRND	LSTRB	RXDC
4			RX-	RXD-	LSTRB	LSTRB	BLANK	No Connection
5			RX+	RXD+	GRND	GRND	LCLK_TOP	GRND
6				VCC	No Connection	No Connection	GRND	No Connection
7					GRND	GRND	GRND	No Connection
8					LDATA	LDATA	GRND	No Connection
9					GRND	GRND	GRND	No Connection
10					LCLK_TOP	LCLK_BOT		

## 2.2 Status LEDs

The status LEDs, located next to the J2 connector port, indicate the status of the SUPREME logic board during normal operation. Table 2.2 lists the LED and a description.

Table 2.2 **SUPREME LED status indicators**

<b>LED</b>	<b>Description</b>
LED 1 (Green)	ON during normal operation. Indicates normal power.
LED 2 (Green)	Flashes when the SUPREME transmits data via the Controller Port (J4) to the controller. It is OFF otherwise.
LED 3 (Red)	Flashes when the SUPREME receives data via the Controller Port (J4). It is OFF otherwise.
LED 4 (Red)	ON during normal operation. It indicates normal voltage operation.
LED 5 (Green)	Flashes when the SUPREME transmits data via the Download Port (J3). It is OFF otherwise.
LED 6 (Red)	Flashes when the SUPREME receives data via the Download Port (J3). It is OFF otherwise.
LED 7 (Green)	ON indicating the RS-485 download transmitter is enabled.
LED 8 (Red)	Flashes when the SUPREME transmits data via the TX-Fiber Port.

## 2.3 Memory

The SUPREME displays animation and jackpot information based on the instructions contained in files stored in its three drive partitions. The three partitions are as follows:

- **RAM:** Referred to as Partition A and located at U5 and U6 on the board. This partition is contains files that change often.
- **Flash Memory:** Referred to as Partition B and located at U7 and U8 on the board. It contains user-created files, which you download to the SUPREME using the MIKOHN DOWNLOAD program. You can also delete and modify any files on this partition.
- **EPROM:** Referred to as Partition C and located at U3 on the board. It contains factory-installed files that you cannot alter.
- **EEPROM:** Located at U12 on the board. This is where the SUPREME stores the logic board settings.

## 2.4 Configuration Switches

The SUPREME logic board has three switches—S2, SW3, and SW4—located in the top right of Figure 2.1. These three switches enable you to configure various SUPREME logic board settings.

- **S2**, allows you to set the logic board in one of two modes: Configuration and Run.
- **SW3 (Function Switch)** allows you to scroll through and select menu options.
- **SW4 (Value Switch)** allows you to scroll through and select value settings for individual menu options.

### 3. SUPREME Firmware

The SUPREME supports serial return protocol for all major slot machines. The SUPREME firmware is stored on the EPROM and each version has a three-letter prefix, which identifies the protocol, followed by the version number. Table 3.1 lists the SUPREME firmware prefixes and the protocol it supports.

Table 3.1 SUPREME Versions

<b>Prefix</b>	<b>Protocol</b>
CSA	Alliance Gaming (Bally)
CSB	Baccarat with vertical displays
CSC	ACRES communication protocol
CSM	General MIKOHN meters
CSP	PROGLINK meters
CSS	IGT meters

### 4. SUPREME Configuration

In the SUPREME hardware configuration, a controller calculates and controls the progressive jackpots for several machines and overhead displays. Each machine has a SUPREME logic board located inside that connects to the controller (at J4). The controller is located at the bottom of either the first or last machine in the bank of machines.

Upon receiving a coin-in signal from a machine, the controller calculates the new jackpot value and sends this information to each SUPREME in the bank of machines to display on its in-machine display. The controller also sends the jackpot value to the overhead display.

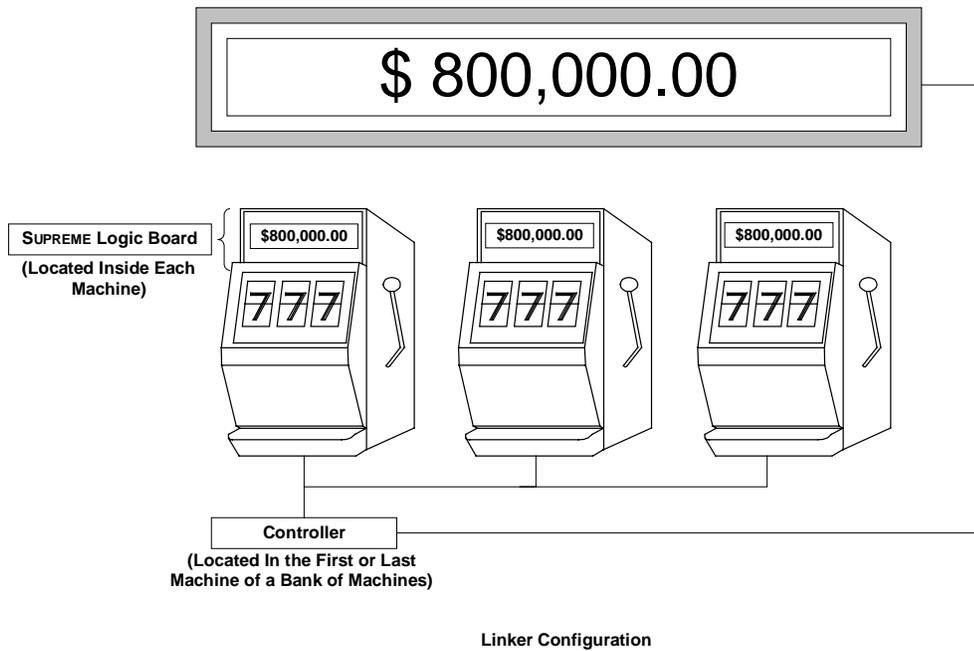


Figure 4.1 *The controller sends progressive data to the SUPREME*

The machines can also be configured so that you can download SUPREME settings to a particular machine or several machines. In this configuration, the PC connects to the Supreme via an RS-485 interface harness, which connects to the Supreme at J3. Figure 4.2 shows the RS-485 wiring harness.

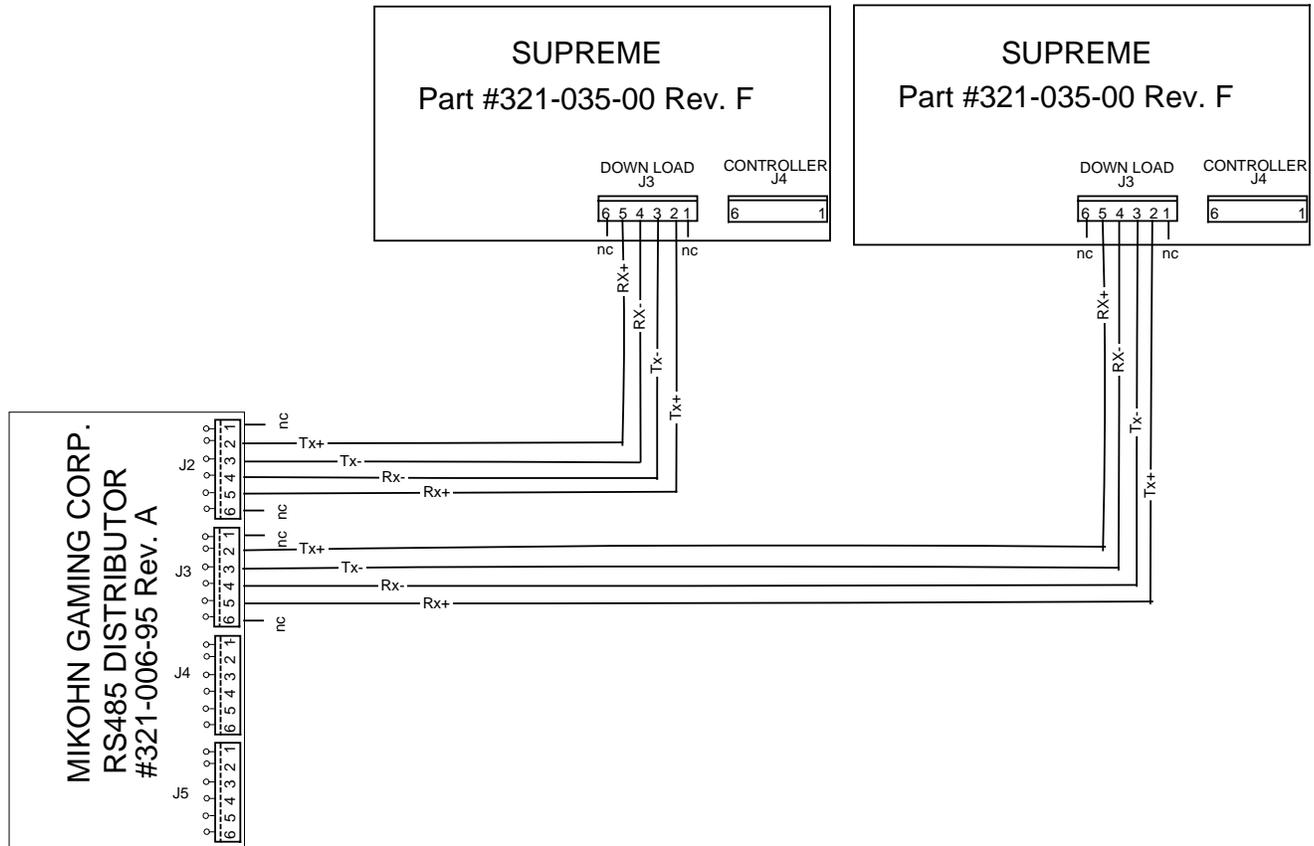


Figure 4.2 RS-485 wiring harness

## 5. SUPREME Settings

To configure the jackpot, display, and system settings for the SUPREME, you must use the configuration switches on the logic board.

To configure the controller, which includes setting jackpot and payout information, sign messages, currency symbols, and odometer aspects, as well as clearing jackpots and performing tests on components of the display system, you must use the MIKOHN PROGRESSIVE SYSTEM PROGRAMMER (PSP) software. Refer to the *Progressive System Programmer Software v2.0 Configuration and User Manual, P.N. 950-051-00* for detailed instructions.

This section explains how to change SUPREME settings and provides a description of each.

### 5.1 Changing SUPREME Settings

The SUPREME must be in configuration mode to change any of its settings. In configuration mode, the display shows three menu items—ADDRESS, DISPLAY, and SYSTEM—from which you can access the Address group, Display group, and System group settings. Table 5.1 lists the SUPREME Address, Display, and System functions and their value ranges.

To change any of the settings, perform the following steps:

1. Ensure the power is engaged and the display is hooked up to J5.
2. Place the SUPREME into configuration mode by sliding **S2**, away from SW3.
3. Press **SW4** to move through the three menu items.
4. With the desired menu item showing on the display, press **SW3** to move through that menu's functions. See Sections 5.2, 5.3, and 5.4 for details on each menu's functions.
5. With the desired function showing on the display, press **SW4** to change its value.

---

#### NOTE:

If you scroll past the desired value, you can move backwards through the values by pressing SW3 and SW4 simultaneously.

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6. To save configuration settings, move **S2** away from SW3. This places the SUPREME in Run mode.

---

#### NOTE:

If you encounter any difficulty in setting up the SUPREME, contact MIKOHN Customer Service at **1-800-798-1942**.

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Table 5.1 *SUPREME Address, Display, and System settings*

<b>Menu</b>	<b>Function</b>	<b>Value</b>
MENU = ADDRESS	PROTO	Mikohn (default value), CCOM7 (CSM v3.00 only), CCOM1 (CSM v3.00 only)
	GRADR	1-255 (default value is 255)
	IDADR	1-64 (default value is 64)
MENU = DISPLAY	JP GROUP	0-7, All (default value is 0)
	Panel	Graphics or Overhead (default value is Graphics)
	Panels Wide	Supreme displays the width of display. This is non-configurable.
	Panels Tall	Supreme displays the height of display. This is non-configurable.
	MFILE	jpot.do or FILE 1-16
	ODSPEED	5-100 (default speed is 50)
	Save To	RAM Drive or Flash Drive
	Timeout	0-120 (CSP v3.11 only)
MENU = SYSTEM	Runtest	OFF (default value)
		Display
		Burn In
		UART
		Normal (all memory)
		All (all above)
		Advanced
	Runbirth	OFF or ON
	Down Baud	2400; 4800; 9600; 19200 (default value is 9600)
	Sound	DISABLED or ENABLED
	Show Loading	YES or NO
	Show C1	YES or NO
	Symbol	None or Country Code
Show Learn	YES or NO	

## 5.2 Address Group Settings

From the Address menu, you can set the protocol, group address, and ID address. The following sections describe the Address menu functions.

### 5.2.1 Protocol (PROTO)

PROTO defines the communication protocol the SUPREME will use. This function has one setting—MIKOHN. SUPREME firmware CSS v3.00 has two additional options—CCOM7 (which supports IGT System Type 7) and CCOM1.

### 5.2.2 Group Address (GRADR)

GRADR identifies the display address for a group of machines and tells the SUPREME where to send the progressive display data. This value ranges from 0 to 255.

### 5.2.3 ID Address (IDADR)

IDADR identifies the address of the display and tells the SUPREME where to send display data. This value ranges from 1 to 64. The ID address represents the type of display.

- 1 to 32 – In-machine displays
- 33 to 63 – Reserved for future display types
- 64 – Overhead display

## 5.3 Display Group Settings

From the Display menu, you can set the number of jackpot groups, MFILE, odometer speed, where to save the settings, and other firmware-specific options, as well as view the number of panels that make up the width and height of the display. The following sections describe the Display menu functions.

### 5.3.1 Jackpot Group (JP GROUP)

JP GROUP specifies the number of jackpot groups and can support up to eight jackpot groups. The JP GROUP value ranges from 0 to 7.

### 5.3.2 Panel

Panel specifies the type of SUPREME display. This setting has two options—Graphics or Overhead.

### 5.3.3 Panels Wide

Panels Wide is the width of the display. Only a MIKOHN Customer Service Representative should change this value.

### 5.3.4 Panels Tall

Panels Tall is the height of the display. Only a MIKOHN Customer Service Representative should change this value.

### 5.3.5 Meter File (MFILE)

The MFILE specifies how jackpot amounts appear on the display. Table 5.2 lists the MFILE values and descriptions. When the MFILE value is *jpot.do*, the SUPREME displays the jackpot as defined in the *jpot.do* file. The *jpot.do* is a binary file that you can create and download to the controller using PSP software.

MFILE values FILE 1 through FILE 16 are pre-set display formats. Justify refers to the alignment of the jackpot amount on the display. Paint means that the jackpot value will change colors from top to bottom. Color refers to the color of the jackpot amount on the display. The color is Red, Green, Yellow, or dazzle (each digit of the jackpot value appears in a different color).

---

#### NOTE:

If you specify *jpot.do*, you must also have a valid *mess.do* (message) file. Use PSP software to create the *mess.do* file.

---

Table 5.2 *MFILE values and descriptions*

Value	Justify	Paint	Color	Description
jpot.do	N/A	N/A	N/A	User defined jpot.do file
FILE 1	Center	No	Red	Internal message with token for active JP Group
FILE 2	Center	No	Green	Internal message with token for active JP Group
FILE 3	Center	No	Yellow	Internal message with token for active JP Group
FILE 4	Center	No	Dazzle	Internal message with token for active JP Group
FILE 5	Center	Yes	N/A	Internal message with token for active JP Group
FILE 6	Center	Yes	N/A	Internal message with token for active JP Group
FILE 7	Center	Yes	N/A	Internal message with token for active JP Group
FILE 8	Center	Yes	N/A	Internal message with token for active JP Group
FILE 9	Right	No	Red	Internal message with token for active JP Group
FILE 10	Right	No	Green	Internal message with token for active JP Group
FILE 11	Right	No	Yellow	Internal message with token for active JP Group
FILE 12	Right	No	Dazzle	Internal message with token for active JP Group
FILE 13	Right	Yes	N/A	Internal message with token for active JP Group
FILE 14	Right	Yes	N/A	Internal message with token for active JP Group
FILE 15	Right	Yes	N/A	Internal message with token for active JP Group
FILE 16	Right	Yes	N/A	Internal message with token for active JP Group

### 5.3.6 Odometer Speed (ODSPEED)

ODSPEED indicates how fast the displayed jackpot amount increments to catch up to the actual jackpot amount. The ODSPEED value ranges from 5 to 100. The lower the value the less the lag is between the displayed and the actual jackpot amounts, which means the displayed and actual amounts are very close.

### 5.3.7 Save To

Save To lets you specify where to save downloaded *jpot.do* and *mess.do* files. This function has two options: RAM drive (Partition A) and Flash drive (Partition B).

### 5.3.8 Timeout

TIMEOUT is available only in SUPREME firmware CSP v3.11 and higher. The TIMEOUT value ranges from 0 to 120 seconds. If the SUPREME does not receive information for a particular jackpot group within the specified TIMEOUT period, it will display Ln DOWN (where n is the link number) followed by the JP GROUP number.

## 5.4 System Group Settings

From the System menu, you can test different aspects of the display and configure various system settings. The following sections describe the System menu functions.

### 5.4.1 Test

The TEST function allows you to run built-in tests for various aspects of the SUPREME logic board and the display, individually or all together. The TEST function has seven options: Off, Display, Burn-In, UART, Normal, All, and Advanced. OFF is the default value and the TEST function must be set to OFF for the SUPREME to function properly. All other options are for testing purposes only.

- OFF: Default condition. TEST must be off in order for the SUPREME to work.
- Display: Tests the display for column and row shorts, as well as color matching. In this testing mode, the display will show the SUPREME firmware version and then flash various colors and patterns across the display.
- Burn-In: Tests the RAM. In this testing mode, the display will show various colors and patterns, the Resets value, and the results of the RAM test.
- UART: Tests the serial ports. Only MIKOHN Customer Service can perform this test, as special adapters are required for the test to pass. See Page 10 for the MIKOHN Customer Service phone number.
- Normal: Tests the memory to ensure it is functioning normally. In this testing mode, the display will show the SUPREME firmware version; Resets value; results of the RAM, ROM and Flash tests; and how long the display has been running.
- All: Runs through all the Display, Burn-In, Normal, and UART tests.
- Advanced: Tests the processor, CPU speed and performance, RAM, ROM, and Flash memory.

### 5.4.2 Runbirth

RUNBIRTH is a factory reset function that clears the RAM (except the RAM drives) and resets all the SUPREME settings to the factory default values. RUNBIRTH has two settings: OFF and ON. MIKOHN recommends this function always read OFF, unless advised by a MIKOHN Service Technician to change this setting to ON.

### 5.4.3 Down Baud

DOWN BAUD is the download baud rate. You can set the rate to either 2400; 4800; 9600; or 19200. 9600 is the default setting.

### 5.4.4 Show Load

Show Load has two settings: YES and NO. When this is set to YES, the display shows when it receives new downloaded settings, such as a new *jpot.do* or *mess.do* file. (Use PSP software to create *jpot.do* and *mess.do* files.)

### 5.4.5 Show C1

The SUPREME shows error codes on the display when the system is experiencing an error. Refer to Appendix A for a list of error codes. The C1 error code, which indicates the display is not receiving data from the controller, is the only error code that you can set to display or not display when this error occurs. SHOW C1 has two settings: YES and NO.

### 5.4.6 Symbol

Symbol represents the type of currency shown on the display, such as dollars or pound sterling. This setting is either NONE or any country symbols available with the SUPREME. If the SUPREME setting is NONE, and you have downloaded a symbol setting to the controller, then the SUPREME will display this symbol.

### 5.4.7 Sound

Sound has two settings: ENABLED and DISABLED. If you set this function to ENABLED, the SUPREME will transmit sound to the sound device connected at J8. You can download sound commands to the SUPREME using DOWNLOAD software.

### 5.4.8 Show Learn

Show Learn is available for CSM v3.11 and above. Show Learn has two settings: YES and NO. If you set this function to YES and you reset the display values (RUNBIRTH), the SUPREME will run through all its settings and will display this. If you set Show Learn to NO, when you reset the display values, the display will appear blank for a few moments as the SUPREME runs through all its settings.

## 6. Displaying Text and Animation

The SUPREME comes with default factory-installed files (stored in Partition C). These include default batch files (.bat), progressive definition files (.pdf), and font files (.fnt). The SUPREME looks for user-defined .bat, .pdf, and .fnt files in Partition A and then Partition B. If it does not find any files in either of these two partitions, it will read the defaults in Partition C.

### 6.1 Batch Files

Batch files are ASCII text files that contain commands telling the SUPREME what to display and when to display it. The SUPREME reads batch files from top to bottom and then back to the top when it reaches the last line in the file. There are two batch files the SUPREME reads—*backgrnd.bat* and *jpwinX.bat*.

The SUPREME continuously reads the *backgrnd.bat* file until the machine hits a jackpot, at which time it reads the *jpwinX.bat* file, where X is the jackpot group number. If the SUPREME does not find a *jpwinX.bat* file, it performs the default celebration.

If the SUPREME does not find a *jpwinX.bat*, then it will display the machine number in red followed by the jackpot, also in red, and then the machine ID (if enabled) in green. It cycles through this two times. It then displays the current progressive in yellow, once, before repeating this series starting with the jackpot amount.

The SUPREME will return to reading the *backgrnd.bat* file after someone has cleared the jackpot.

### 6.2 Batch File Commands

Frequently used batch files commands include REM, PRGSV, TEXT, and PLAY. Other useful commands include REMOTE, REPEAT, SOUND, and ST. These are explained in the following sections.

#### 6.2.1 Remark (REM) Command

The REM command allows you to remark out instructions or comments in a batch file. When the SUPREME reads the batch file, it ignores these lines. Figure 6.1 shows an example of a REM command. The REM command has the following format:

```
REM[ text ]
```

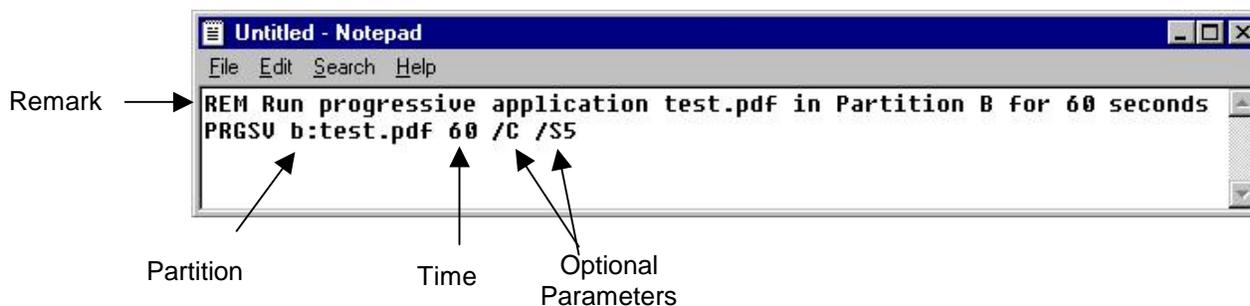


Figure 6.1 *REM and PRGSV commands*

### 6.2.2 Progressive (PRGSV) Command

The PRGSV command tells the SUPREME to execute the progressive application (.pdf file). See Figure 6.1 for an example of this command. It has the following format:

```
PRGSV [partition]:[filename.pdf] [time] [optional parameters]
```

- **Time** is the number of seconds the SUPREME will run the application. If this is not specified, the progressive application will run continuously.
- **Optional Parameters** include /C to clear the screen before starting the progressive application and /S[n] to play sound command n, where n is a number between 0 and 110 that represents a sound file on the sound device.

---

#### NOTE:

The *jpwinX.bat* file should not contain the PRGSV command because it will cause the SUPREME to display \$0.00.

---

The progressive application (.pdf file) is an ASCII file that contains Template commands and all the details about the windows that make up the display, including the window locations and sizes, and the message files for each window. Figure 6.2 shows a .pdf file.

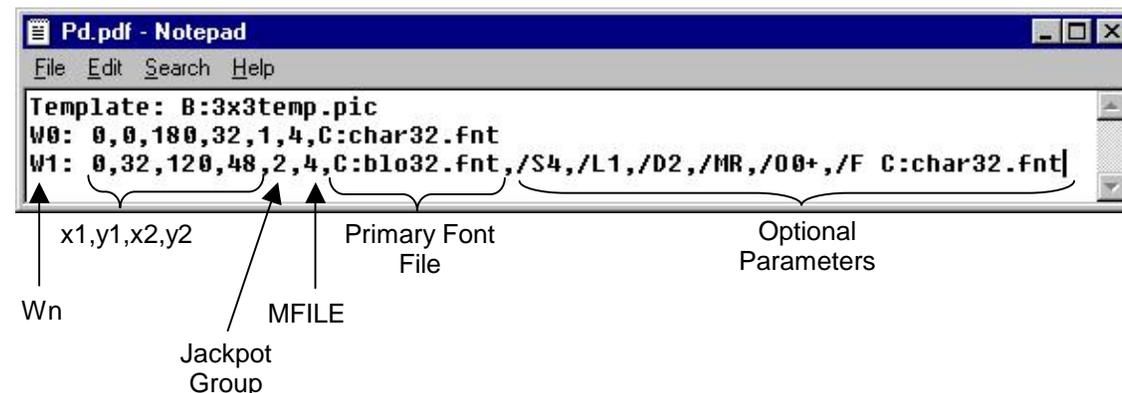


Figure 6.2 **Example of a .pdf file**

The `Template` command specifies a background image file that will appear in the displays. This command has the format:

```
Template: [partition]:[filename.pic]
```

The window coordinates have the following format:

```
Wn:x1,y1,x2,y2,[jackpot group],[MFILE],[font file],[optional  
parameters]
```

- **Wn** is a particular window of a display, where *n* is the window number. Because the SUPREME display can support up to eight windows, you can have settings for W0 through W7, where W0 represents Window 1, W1 represents Window 2, and so on.
- **x1,y1,x2,y2** are the window coordinates (in pixels). The coordinates (x1, y1) are the top left corner of the window, while (x2,y2) are the coordinates for lower right corner. In Figure 6.2, W0 has the x1,y1 coordinates of (0,0) and the x2,y2 coordinates of (180,32).
- A machine can have up to eight jackpot groups. **Jackpot group** represents the particular jackpot group information that will display in that window. For example, in Figure 6.2, Jackpot Group 1 information will display in W0 and Jackpot Group 2 in W1. You can also use *\** or *?* instead of the jackpot group number, which tells the SUPREME to use the jackpot group defined using the SUPREME logic board switches. Refer to Section 5 to set the jackpot group using the SUPREME switches.
- The **MFILE** value is a predefined format that specifies how jackpot amounts appear on the display. See Section 5.3.5 for a list and description of MFILE values. You can also set this value using the SUPREME switches, instead of defining it in the .pdf file.
- The **primary font file** is the font that the SUPREME will use for meter display and messages in that particular window. You can select a different font for each window. The SUPREME does not support characters in the special effect fonts (these fonts have an asterisk beside the font name in Table 6.1). If the primary font is a special effect font, you must specify a secondary font, which it will use for displaying messages.

---

### NOTE:

Because the SUPREME stores the fonts in RAM, if you download too many fonts, some applications that need extra RAM (such as storyboard) will not operate or the display will appear blank while the SUPREME loads the font files.

MIKOHN does not recommend using multiple effect fonts in the .pdf file due to memory constraints.

---

Table 6.1 **SUPREME fonts**

<b>Font</b>	<b>Description</b>	<b>Meter Effect</b>	<b># of Colors</b>
BLO16	16 pixels high single color font. Has the complete ASCII character set.	Odometer	1
BLO32	32 pixels high single color font. Has the complete ASCII character set.	Odometer	1
CEN32	32 pixels high single color font. Includes numbers and characters.	Odometer	1
CHAR16	16 pixels high 3D fonts. Has the complete ASCII character set.	Odometer	2
CHAR32	32 pixels high 3D fonts. Has the complete ASCII character set.	Odometer	2
DECO16	16 pixels high single color font. Includes numbers and characters.	Odometer	1
FLIP16 *	16 pixels high 3D numbers. Use CHAR16 font for characters.	Rotate numbers 90° vertically.	2
FLIP32 *	32 pixels high 3D numbers. The CHAR32.fnt can be used as the secondary font for characters.	Rotate numbers 90° vertically.	2
LAP32	32 Pixels high single color font. Includes numbers and characters.	Odometer	1
MORF16 *	16 pixels high 3D numbers. Use CHAR16 font for characters.	Morph one number to the next number.	2
MORF32 *	32 pixels high 3D numbers. The CHAR32.fnt can be used as the secondary font for characters.	Morph one number to the next number	2
ROT16 *	16 pixels high 3D numbers. Use CHAR16 font for characters.	Rotate numbers 90° horizontally.	2
ROT32 *	32 pixels high 3D numbers. The CHAR32.fnt can be used as the secondary font for characters	Rotate numbers 360° horizontally.	2
S481	48 pixels high 3D fonts.	Odometer	2

\* Special effect fonts are used for the meter presentation only. These fonts do not contain the standard character set.

- **Optional parameters** allow you to specify additional formatting, such as character spacing and currency symbol positioning. Table 6.2 lists the optional parameters.

Table 6.2 **Optional parameters**

Parameter	Default	Description
/S[n]	1 pixel	Space between characters (number of pixels). Note: In a .bat file this parameter refers to sound and not spacing.
/L[n]	0 pixel	Character position on the display (starting row position of characters in pixels).
/D[n]	0 pixel	Currency Symbol position (starting row position of currency symbol in pixels).
/F[Partition]:File Name]	6 high error font	Secondary font type (file name with drive). Refer to Table 6.1 for a list of fonts that the Supreme supports.
/M[c]	N/A	[c] is the color for the currency symbol and monetary punctuation (period and commas), where R is Red, G is green, and Y is yellow. For example: /M[R], /M[G], and /M[Y].
/O[n][+or -]	N/A	[n] is an option, where 0 is small commas; 1 is small period; 2 is no currency symbol; 3 is no comma; 4 is no period; 5 is small cents symbol (checkbook mode). + adds the option and - removes it.

### 6.2.3 TEXT Command

The TEXT command tells the SUPREME to execute a particular text (.txt or .cmd) file. The TEXT command has the following format:

```
TEXT [partition]:[filename.txt] /[time] /level /pending /no blanking
/[sound]
```

For example, TEXT b:win0.txt /60 /level /pending /no blanking /S5

- **Time** is the number of seconds the SUPREME will play the text file. If no time is specified, the SUPREME will display the text and then immediately execute the next command.
- **Level** tells the SUPREME to show the jackpot level during a jackpot celebration.
- **Pending** tells the SUPREME to show that the jackpot level is pending during a jackpot celebration.
- **No blanking** tells the SUPREME not to clear the screen before executing the text file.
- **Sound** is represented by /S[n], where n is a number between 0 and 110 that represents a sound file on the sound device. To repeat the sound use /S[n] R.

The text file is an ASCII file that contains various text file commands. In the TEXT command example above, *win0.txt* is a text file. Figure 6.3 shows a text file that contains the PRINT command. PRINT tells the SUPREME to display Winner! and insert a new line (\n). See Appendix B for a list of text file commands.

---

**NOTE:**

Ensure all text file commands end with a semicolon.

---



Figure 6.3 *Example of a text file*

Use PRINT to display a winning amount, machine number, machine ID, progressive amount, and comment text by including a statement like PRINT(n) where n is one of the following parameters. An example of this statement is PRINT(\JW).

- \JW: Jackpot winning amount
- \JM: Jackpot winning machine number
- \JI: Jackpot winning machine ID
- \JP: Current progressive amount
- \JC: Comment or location text message available only with SUPREME firmware version CSP v.3.1X)

---

**NOTE:**

You can specify the alignment of the jackpot information by including \c (center) or \r (right flush) on a separate line before the text command.

---

### 6.2.4 Play Command

The PLAY command tells the SUPREME to display a MIKOHN animation file. The PLAY command has the following format:

```
PLAY [partition]:[filename.mik] [times] [milliseconds per frame]
/[sound]
```

For example, `PLAY b:logo.mik 1 80 /S5`

- **Times** is the number of times the Supreme will play the animation file. This parameter must be 1 or more. If no time is specified, the Supreme will display the animation and then immediately execute the next command.
- **Milliseconds per frame** is the length of time the Supreme will play each frame. In the above example, the animation will play once at 80 milliseconds per frame.
- **Sound** is represented by `/S[n]`, where `n` is a number between 0 and 110 that represents a sound file on the sound device. To repeat the sound use `/S[n] R`.

To create an animation file, refer to Section 0.

## 6.3 Other Commands

### 6.3.1 Remote Command

The REMOTE command places the SUPREME in a mode to receive commands serially from the controller rather than from the *backgrnd.bat* file. The format of this command in the .bat file is simply the word REMOTE. When the SUPREME reads this command it will refresh the display and wait for codes from the controller. Table 6.3 lists the codes the Controller sends to the SUPREME. Table 6.4 lists the remote commands.

Table 6.3 *List of codes the controller sends to the SUPREME in remote mode*

<b>Controller Code</b>	<b>Description</b>
0F5H	MIKOHN header preface
0D4H	A remote command message
0xxH	Reserved (set to 000H)
0xxH	Group Address (0-255)
0xxH	ID Address number (56-63)
0xxH	ID Address (48-55)
0xxH	ID Address (40-47)
0xxH	ID Address (32-39)
0xxH	ID Address (24-31)
0xxH	ID Address (16-23)
0xxH	ID Address (8-15)
0xxH	ID Address (0-7)
0xxH	Byte count of the remote command
0xxH	Remote command (0-11). See <b>Table 6.4</b> .
0xxH	Remote command bytes (a separate code for each byte)
0xxH	Two-byte CRC (least significant byte)
0xxH	CRC most significant byte

Table 6.4 *Remote Commands*

Remote Commands	Action	Required Parameters
0	Play MIK	[times to play] [delay] [.mik filename (including extension)] <ul style="list-style-type: none"> <li>If <i>times to play</i> is 0, then SUPREME will play the file until it receives another command from the controller</li> <li><i>Delay</i> default is 35 seconds</li> </ul>
1	Clear Screen	No parameters
2	Font	[font name (including drive)]
3	GOTOXY	[X][Y] <ul style="list-style-type: none"> <li><i>X</i> and <i>Y</i> are window coordinates (in pixels)</li> </ul>
4	SET COLOR	[fore color] [back color] <ul style="list-style-type: none"> <li><i>fore color</i> and <i>back color</i> is a number that represents a particular color. The options are 0 (black), 1 (green), 2 (red) or 3 (yellow)</li> </ul>
5	Print String	[string] <ul style="list-style-type: none"> <li><i>string</i> has maximum length of 78 characters</li> </ul>
6	SET PIXEL	[X][Y][fore color] <ul style="list-style-type: none"> <li><i>X</i> and <i>Y</i> are window coordinates (in pixels)</li> <li><i>fore color</i> is a number that represents a particular color. The options are 0 (black), 1 (green), 2 (red) or 3 (yellow)</li> </ul>
	LINE	[X1][Y1][X2][Y2] [fore color] <ul style="list-style-type: none"> <li><i>X1, Y1, X2</i> and <i>Y2</i> are window coordinates (in pixels)</li> <li><i>fore color</i> is a number that represents a particular color. The options are 0 (black), 1 (green), 2 (red) or 3 (yellow)</li> </ul>
	BOX	[X1][Y1][X2][Y2] [fore color] <ul style="list-style-type: none"> <li><i>X1, Y1, X2</i> and <i>Y2</i> are window coordinates (in pixels)</li> <li><i>fore color</i> is a number that represents a particular color. The options are 0 (black), 1 (green), 2 (red) or 3 (yellow)</li> </ul>
	NEXTLINE	No parameters
	TEMPLATE	[template name (including drive)]
	SOUND	[sound byte] <ul style="list-style-type: none"> <li>sound byte is either 0 (no sound) or a number from 1 to 110, which represents the sound file on the sound device.</li> </ul>
	EXIT	Note: this will cause the SUPREME exit remote mode to go to the next item in the <i>backgnd.bat</i> file

### 6.3.2 Repeat Command

The REPEAT command tells the SUPREME to repeat a particular batch file command after a specified amount of time has elapsed. The format of the command is:

```
REPEAT [time] [batch file command]
```

For example, REPEAT 15 PLAY b:win1.mik

- *Time* is the number of minutes that will elapse before the SUPREME repeats the batch file command. This must be between 1 and 1439 minutes. In the REPEAT example above, the SUPREME will play the *win1.mik* file every 15 minutes.

---

#### **NOTE:**

You can use up to 10 REPEAT commands in your *backgrnd.bat* file.

---

### 6.3.3 Sound Command

The SOUND command tells the SUPREME to execute sound. The format of this command is:

```
SOUND/[sound]
```

For example, SOUND/S5 R

- *Sound* is represented by /S[n], where n is a number between 0 and 110 that represents a sound file on the sound device. To repeat the sound use /S[n] R.

---

#### **NOTE:**

You can also include a sound parameter in a PLAY, ST, and TEXT Commands instead of using the SOUND command.

---

To enable sound, ensure you set the SUPREME sound function to ENABLED. Refer to Section 5. Also ensure the sound device operates at the same baud rate as the device on the Controller port (J4).

### 6.3.4 Storyboard (ST) Command

The ST command tells the SUPREME to execute the Storyboard Animation file. The ST command has the following format:

```
ST [partition]:[filename.sh~] [times] [milliseconds per frame]
/[sound
```

For example, ST b:cartoon.sh~ 5 80 /S5

- **Times** is the number of times the Supreme will play the storyboard file. This parameter must be 1 or more.
- **Milliseconds per frame** is the length of time the Supreme will play each frame. In the above example, the storyboard will play 5 times at 80 milliseconds per frame.
- **Sound** is represented by /S[n], where n is a number between 0 and 110 that represents a sound file on the sound device. To repeat the sound use /S[n] R.

## 6.4 Creating .bat, .pdf, and .txt Files

If you have MIKOHN DOWNLOAD for Windows® v2.0 software, you can use it to create .bat, .pdf, and .txt files. Refer to the *DOWNLOAD for Windows v2.0 User Manual, P.N. 990-241-18*. Older versions of Mikohn DOWNLOAD software do not include this capability, so you will have to use a separate text editor program to create these files. To download the files to the SUPREME, refer to the *DOWNLOAD for Windows v2.0 User Manual, P.N. 990-241-18* or *Animation Display Configuration and User Manual, P.N. 990-250-00* (for older versions of DOWNLOAD software).

To create .bat, .pdf, and .txt files using a text editor program, perform the following steps:

1. Open a text editor program, such as the Microsoft Windows Notepad application.
2. Type command statements for the type of file you are creating. Refer to [Section 6.2](#) for specific file commands.
3. On the File menu, select **Save As**.
4. Select the drive from the *Save in* list.
5. Select **All Files** from the *Save as type* list.
6. Type the filename with the appropriate extension in *File name*. Type .bat for a batch file, .pdf for a progressive definition file, or .txt for a text file at the end of the file name.
7. Click **Save**.
8. Download the file to the SUPREME using the MIKOHN Download software.

## 6.5 Converting Animation Files

If you create your own animation files (.fli or .flc), you will need to convert these to the MIKOHN file format (.mik) using the MIKOHN FLI2MIK converter software and download them to the SUPREME using the MIKOHN DOWNLOAD software. Refer to the *DOWNLOAD for Windows v2.0 User Manual, P.N. 990-241-18* or the *Animation Display Configuration and User Manual, P.N. 990-250-00* (for older versions of DOWNLOAD software).

To convert an .fli or .flc file to an .mik file, perform the following steps:

1. Open the MS-DOS command prompt screen.
2. Change the directory to one where you want to save the animation file.
3. At the MS-DOS prompt, type FLI2MIK filename.fli filename.mik, where filename.fli is the name of your .fli file and filename.mik is the name of the .mik file that you are creating. For example, FLI2MIK cartoon.fli cartoon.mik.
4. Download the .mik file to the SUPREME using the MIKOHN DOWNLOAD software.

## Appendix A - Error Codes

The SUPREME displays two types of error codes—display and controller. **Error! Reference source not found.** and Table A.2 list these codes.

Table A.1 *Display error codes*

<b>Error Code</b>	<b>Description</b>
<b>C1</b>	Display has lost communication with a Mikohn controller
<b>C2</b>	C2 displays when the current jackpot value has more than the allowable number of digits for the display
<b>E1</b>	EEPROM bad signature
<b>E2</b>	EEPROM bad CRC
<b>E3</b>	EEPROM write error
<b>E4</b>	EEPROM read error
<b>E5</b>	EEPROM range error

Table A.2 *Controller error codes*

<b>Error Code</b>	<b>Description</b>
<b>C10</b>	Checksum of value in the controller has failed
<b>C11</b>	Fiber buss communication error in UART indicating that over 20 errors have been received from the fiber bus
<b>C12</b>	JP limit programmed is less than current JP
<b>C13</b>	Over 20 errors have been received from the model 102
<b>C14</b>	Slot machine interface communication error in UART indicating that over 20 errors have been received from the slot machine interface
<b>C15</b>	Power up jackpot limit failure indicating that current jackpot is above the jackpot limit on power
<b>C16</b>	Power brown out
<b>C17</b>	RAM signature error
<b>C18</b>	Hidden JP is equal to or greater than the JP limit
<b>C19</b>	Current JP is greater than the JP limit
<b>C20</b>	Coin-in buffer (Random Jackpot system only)
<b>C21</b>	Digit overflow
<b>C30</b>	Slave controller does not detect a master present
<b>C31</b>	Slave being polled but has not been acknowledged after 20 retries
<b>C32</b>	Slave resend RAM failure

<b>Error Code</b>	<b>Description</b>
<b>C50</b>	MULTI-COM not responding
<b>C51</b>	Transmission/Reception failure
<b>C52</b>	Transmission/Reception failure
<b>C77</b>	Database error
<b>C80</b>	Slave controller does not detect a master present on a random bonus game
<b>C81</b>	Slave coin buffer overflow
<b>C82</b>	Random coin matrix buffer overflow
<b>C83</b>	Random coin buffer overflow
<b>C84</b>	Denomination multiplier overflow
<b>C90</b>	Interference with fiber optic. C11 in CON2 V2.05 or greater
<b>C91</b>	Controller conflict on fiber line. C11 in CON2 V2.05 or greater
<b>C92</b>	Transmission/reception failure on fiber line. C11 in CON2 V2.05 or greater
<b>C93</b>	Controller conflict.. Same as C91. C11 in CON2 V2.05 or greater

## Appendix B - Text File Commands

Appendix B lists the text file commands which you can use in your .txt file. You can group more than one text command in a line, however the maximum line-length is 64 characters and the SUPREME will truncate any line at the 64<sup>th</sup> character. You can also add comments to a text file by adding two forward slashes (//) in front of the comment.

---

### NOTE:

Ensure all text commands end with a semicolon.

---

- BCOLOR(color)**     *Background Color:* Sets the background color. Background colors can be specified as a number or as a word describing the color. Colors specified as numbers are 0 = Black (the default background color), 1 = Green, 2 = Red, 3 = Yellow. For example:
- ```
BCOLOR(2);           // selects red background color.
BCOLOR(RED);        // also selects red background color.
```
- BOX(x1,y1,x2,y2)**     *Hollow Box:* Draws a hollow box from the corners (x1,y1) to (x2,y2) using the current foreground color. The (x1,y1) coordinate pair defines the top left corner of the box, and (x2,y2) defines the bottom right corner of the box. The x1 coordinate should always be less than or equal to the x2 coordinate, and the y1 coordinate should always be less than or equal to the y2 coordinate.
- CLREOL()**     *Clear to End-Of-Line:* Clears the line from the current cursor position using the current background color and font size without moving the cursor position.
- CLRSCR()**     *Clear Screen:* Clears the entire screen using the current background color and locates the cursor one row down and one column to the right from the upper left corner of the screen (coordinate (2,2)). This allows the background color to completely surround any text which will be printed, thus providing a clearer image. If so desired, the cursor can be moved to the absolute upper left corner by issuing a GOTOXY(1,1) command after the CLRSCR() command.
- COLOR(color)**     *Foreground Color:* Sets the foreground color. The foreground color is the color the text will display in. Colors specified as numbers are 0 = Black, 1 = Green (the default foreground color), 2 = Red, 3 = Yellow.
- DISPLAY()**     *Update the Display:* Copies the current image to the display. For further information, see the MODE() command.
- FBOX(x1,y1,x2,y2)**     *Filled Box:* Draws a filled box from the corners (x1,y1) to (x2,y2) using the current foreground color. The (x1,y1) coordinate pair defines the top left corner of the box, and (x2,y2) defines the bottom right corner of the box. The x1 coordinate should always be less than or equal to the x2 coordinate, and the y1 coordinate should always be less than or equal to the y2 coordinate.

- FONT(font)** *Font Select:* Sets the type of font to use. Special effect fonts do not contain the standard character set, therefore do not use them in text applications. See [Table 6.1](#) for a list of fonts the SUPREME supports. An example of this command is `FONT(c:blo16.fnt)`.
- GOTOXY(x,y)** *Locate the Cursor at Position (x,y):* Moves the cursor to the coordinate position specified by (x,y) where x is the horizontal position and y is the vertical position on the Cartesian coordinate system. Minimum values for the x and y coordinates are 1, while maximum values are dependent upon the display size—typically 180 for x and 112 for y. Any value greater than the display dimensions will be clipped to the maximum valid dimension. Any value less than 1 will cause an error, and the SUPREME will skip this command.
- LINE(x1,y1,x2,y2)** *Line Draw:* Draws a line from the corners (x1,y1) to (x2,y2) using the current foreground color. The (x1,y1) coordinate pair defines the endpoint of the line, and (x2,y2) defines the other endpoint of the line.
- MODE(type)** *Set the Display Update Mode:* Sets the display mode for automatic display updating (type = 0), or manual display updating (type = 1). The default display mode is automatic, so all commands that produce images, such as `CLRSCR()`, `BOX()`, and `LINE()`—will automatically appear on the screen. When set for automatic display updating, the SUPREME updates the display after it executes each command. This can appear as though the display blinks when changes are made to the image. To avoid this blinking, set the mode to manual display updating before changing the image. Changes made to the image will not be sent to the display until the SUPREME executes the `DISPLAY()` command. This way you can make many changes to the image and the SUPREME will update them at one time, thus eliminating the blinking effect. The `MODE()` can be changed back and forth within the command file to achieve various effects. Note: when the `SCROLL()` feature is enabled, the SUPREME always updates the screen.
- PICTURE(filename)** *Clear the Screen by Showing the Picture:* The controller clears the screen and displays the picture defined by the filename. The picture must be created with Picture Maker from the IBM Storyboard program. The `PICTURE` command locates the cursor at the upper left corner of the display, just like the `CLRSCR` command. For example:
- ```
PICTURE(MIKOHN.PIC); // Clears display with MIKOHN picture
PICTURE(FLAG.PIC); // Clears display with flag picture
```

**PRINT(string)**

*Print the String Starting at the Cursor Position:* Prints the string using the font and color from the current cursor position. If the string is too long for the line, then it will wrap around to the next line. If this happens at the bottom line, then the string is truncated. To display the winning amount, machine number, machine ID, progressive amount, and comment text, use the PRINT with any of the following jackpot parameters. For example, PRINT(\JW).

- \JW – Jackpot winning amount
- \JM – Jackpot winning machine number
- \JI – Jackpot winning machine ID (if the ID is set up in the controller)
- \JP – Current progressive amount (this value has no odometering on, just the current amount)
- \JC – Jackpot machine message (only available in CSP V3.1X)

Use each command on a new line in the text file (do not put text in front or behind the \JW). You can also include the following commands in the string:

- \n – *New line:* Moves the cursor down one line and to the left edge (much like a carriage return).
- \f – *Form feed:* Causes the entire display to scroll up and reveal a new page (similar to the way a printer works). After a form feed the cursor is located at position (2,2).
- \t – *Tab:* Causes the cursor to move to the next column on the same line. If, however, the tab causes the cursor to go off the right edge of the display, then the cursor will be located at the first column of the next line.

The following three examples show the PRINT command followed by an example of how this would appear on the display.

Example 1

```
PRINT(MIKOHN\nDISPLAYS\n);
```

MIKOHN DISPLAYS
--------------------

Example 2

```
PRINT(TAB\tEXAMPLE\n);
```

TAB	EXAMPLE
-----	---------

## Example 3

```
PRINT(\n\nFORMFEED EXAMPLE\n);
PRINT(THIS WILL SCROLL\n);
PRINT(\fAFTER FORMFEED\n);
```

```
FORMFEED EXAMPLE          ↑
THIS WILL SCROLL
↑
```

The text is near the center of the display as a result of the two new line commands. The arrows indicate that the text is scrolling up.

```
THIS WILL SCROLL
↑
```

The text scrolls up, pushing the first line off the top of the display.

```
AFTER FORMFEED
```

Once the first and second lines have completely scrolled off the top of the display, the next text displays.

**SCROLL(type)**

*Set the scrolling method:* Specifies the type of scrolling to be used. A value of 0 disables scrolling (the default method). A value of 1 is the fastest scroll, while 10 is the slowest. All other values are in error and will cause the command to be ignored.

**TSPACE(col, row)**

*Set the Text Spacing* Specifies the blank columns between characters in the col parameter and blank rows between lines of text in the row parameter. The minimum value is 0, while the maximum values are the width of the display for the col parameter, and the height of the display for the row parameter. The default text spacing is one blank column and one blank row. For example:

```
TSPACE(2,3);           // Sets two blank columns between characters, and
                       // Three blank rows between lines of text.
```

**WAIT(time)**

*Wait for Specified Time* Causes the display to wait for the specified time before moving on to the next command. The time is specified in 1/10 second intervals. The maximum value for the time is 6500 seconds. If a time setting of 0 is specified, then the display will wait indefinitely. For example:

```
WAIT(10);              // Waits for 1 second
WAIT(600);             // Waits for 1 minute (60 seconds)
WAIT(0);               // Waits forever
```

## Examples of Command Files

Example 1:

```
BCOLOR(0); CLRSCR();           // clear the screen
COLOR(1); FONT(0); // define the font and color
PRINT(This is example one\n);  // print a title
PRINT(Hello, World\n);        // print a greeting
```

<pre>This is example one Hello, World</pre>
---

Example 2: This example uses the tab \t to align data along columns.

```
BCOLOR(0); CLRSCR();           // clear the screen
COLOR(1); FONT(0); // define the font and color
PRINT(Item\t\t#\tCost\n);      // print a heading
COLOR(2);                      // change colors before printing items
PRINT(Widget\t\t1\t$1.50\n);   // print an item
PRINT(Ball\t\t2\t$2.95\n);     // print another item
PRINT(Cube\t\t3\t$5.99\n);     // print the last item
```

Item	#	Cost
Widget	1	\$1.50
Ball	2	\$2.95
Cube	3	\$5.99

Example 3: This example uses the tab \t to align data along columns.

```
BCOLOR(0); CLRSCR(); // clear the screen
COLOR(1); FONT(0); // define the font and color
PRINT(P/C\t\tT/C\tVOLUME\n\n); // print a heading
COLOR(2); //change color item name.
PRINT(FIAT\n); // print an item.
COLOR(3); // change color for data.
PRINT(5702\t5694\t2390\n); // print item data.
COLOR(2); // change color item name.
PRINT(IBM\n); // print next item.
COLOR(3); // change color for data.
PRINT(113\t11. 1/8\t1124200\n); // print item data.
COLOR(2); // change color item name.
PRINT(DIGITAL EQ.\n); // print an item.
COLOR(3); // change color for data.
PRINT(63. 5/8\t63\t458100\n); // print item data.
WAIT(0); // wait forever.
```

P/C	T/C	VOLUME
<b>FIAT</b>		
5702	5694	2390
<b>IBM</b>		
113	111. 1/8	1124200
<b>DIGITAL EQ.</b>		
63. 5/8	63	45810

## Glossary

<b>ASCII</b>	American Standard Code for Information Exchange. A code that represents alphanumeric information.
<b>Batch File</b>	An ASCII text file that contains one or more command lines for the controller. A batch file determines the appearance sequence of animation and progressive information on a display.
<b>Baud</b>	Data transmission speed in bits per second.
<b>Binary File</b>	A file type that contains printable and non-printable characters and requires a special program to interpret it.
<b>Burn-in</b>	A SUPREME Test function setting that tests the RAM.
<b>CRC</b>	Cyclic Redundancy Check. A method for detecting data transmission errors.
<b>Casino</b>	Also <i>Site</i> or <i>Venue</i> . A gaming location.
<b>CASINOLINK</b>	A Mikohn real-time management system that offers a fully integrated suite of modules to provide concise slot accounting, player and revenue tracking, progressive and mystery jackpots, and overall management functions for stand-alone and multi-site gaming operations.
<b>Coin In</b>	The value of coins wagered in a gaming machine. Also known as Turnover, (Coin) Credits Played, and (Coin) Credits Wagered.
<b>CON2</b>	A MIKOHN Controller. See <i>Controller</i> .
<b>Controller</b>	A device that controls progressive game information such as jackpot amounts and contribution percentages.
<b>Display</b>	Electronic sign using LED technology to communicate a wide range of information, such as Jackpot values and win celebrations, promotions, and advertising. Displays connect to the system network and receive data files from machines and the IOC that determine jackpot values, wins, and other information.
<b>Down Baud</b>	The SUPREME download data transmission speed in bits per second.
<b>EEPROM</b>	Electronically Erasable Programmable Read Only Memory
<b>EPROM</b>	Erasable Programmable Read Only Memory. A chip that stores programs or data.
<b>Flash</b>	A type of NVRAM, named for the speed with which its memory cells can be erased.
<b>Font</b>	A set of text characters with a particular format and size.
<b>Function</b>	A program or one part of a module that may be represented by icons or text in menus or taskbars.
<b>GRADR</b>	Group Address. The address assigned to a group of items, such as jackpots, visual displays, jackpot trigger devices, or machines. There are up to 255 group addresses.
<b>Harness</b>	The assembly of wiring that connects two or more components.

<b>IDADR</b>	ID Address. The address assigned to a group of items with a group (see <i>GRADR</i> ), such as jackpots, visual displays, jackpot trigger devices, or machines. There are up to 64 ID addresses.
<b>I/O</b>	Input/Output serial port.
<b>Jackpot</b>	A prize awarded to a game player upon receiving a winning combination in a game.
<b>Jackpot Reset Switch</b>	A key-activated switch that enables option selections within some self-test pages; enters and advances through the statistical data mode; and resets the machine's internal progressive parameters (if applicable) after a jackpot.
<b>JP GROUP</b>	Jackpot Group. The SUPREME handles up to eight different progressive jackpot amounts, also called jackpot groups, for a single machine.
<b>LED</b>	Light-Emitting Diode. The technology used in Visual Displays.
<b>Level</b>	A classification of jackpot amounts. A machine can have up to eight jackpots. The top award is designated as Level 0, the next highest is Level 1, and so on.
<b>Link</b>	A group of machines that jointly contribute to the same Progressive.
<b>Logic Board</b>	A circuit board that contains the power supply connection, the memory, chips for controlling the serial and parallel ports, and status LEDs.
<b>Meter</b>	An overhead Visual Display showing the incrementing numbers of a Progressive Jackpot.
<b>MFILE</b>	Meter File. MFILE is a SUPREME display setting where the MFILE value corresponds to a pre-defined jackpot amount format.
<b>MIKOHN DOWNLOAD Software</b>	A MIKOHN application that allows transfer of files back and forth between a computer and CHAMII, AGL, and SUPREME logic boards.
<b>MIKOHN DOWNLOAD for Windows software</b>	A MIKOHN application that allows transfer of files back and forth between a computer running MICROSOFT WINDOWS 95®, 98®, or NT®, and a SUPREME, AGL, or MARK 2 logic board.
<b>NVRAM</b>	Non-Volatile Random Access Memory.
<b>ODSPEED</b>	Odometer Speed. The rate at which the SUPREME displayed jackpot value increases to catch up to the actual jackpot value.
<b>PGID</b>	Progressive Group Identification. The PGID is the number, from 0-7, given to a particular progressive jackpot group. A Progressive Group is a collection of Progressive Levels.
<b>Pinout</b>	A functional description of each pin in a connection interface.
<b>PROGLINK</b>	The progressive protocol module of the MIKOHN CASINOLINK system.
<b>Progressive (Jackpot)</b>	A gaming machine or network of machines that each contribute a fixed percentage of wagers to a continuously incrementing Jackpot. A player wins the Progressive Jackpot by playing a progressive game with qualifying wagers. An overhead visual display usually installed above the bank of machines linked to the progressive shows the current amount of the jackpot.

<b>PSP</b>	Progressive System Programmer MIKOHN software that allows you to program the controller's settings and the progressive jackpot information.
<b>PRGSV</b>	A batch file command that tells the SUPREME to read a particular progressive definition file.
<b>PROTO</b>	Protocol. Rules for communicating between two end points.
<b>RAM</b>	Random Access Memory. Used for temporary data storage.
<b>REM</b>	The REM command allows you to remark out instructions or comments in a batch file. When the controller reads the file, it ignores these lines.
<b>RS-232</b>	Recommended Standard 232. An interface that supports one transmitter and one receiver locally and is used to communicate serially.
<b>RS-422</b>	Recommended Standard 422. A serial line standard that is used for communications between a circuit board and a receiver.
<b>RS-485</b>	Recommended Standard 485. A distribution board used to increase the number of devices connected to a DCU display port. It supports 32 drivers and 32 receivers. Its serial communication protocol is used typically to connect a PC with other devices that share a common cable. The communication cable that meets the requirements for this interface is referred to as RS-485 cable.
<b>ROM</b>	Read Only Memory.
<b>RUNBIRTH</b>	The SUPREME factory reset function that restores the settings stored in the RAM (except the RAM drive) to its default values and the test counters back to zero.
<b>SUPREME</b>	A visual display logic board that uses LED technology to display progressive values.
<b>Test Function</b>	Software mode that allows processor board input and output tests and enables option selections.
<b>TEXT</b>	A batch file command that tells the SUPREME to read a particular text file.
<b>Site</b>	Also Casino or Venue. A gaming location.
<b>SUPERLINK</b>	The computer that links a number of MIKOHN Super Controllers.
<b>UART</b>	Universal Asynchronous Receiver Transceiver. An integrated circuit that enables serial communication between a transmitter (parallel-to-serial converter) and a receiver (serial-to-parallel converter).

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