SLOT TECH MAGAZINE

Slot Machine Technology for the North American Gaming Industry

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Quick & Simple Repairs #36

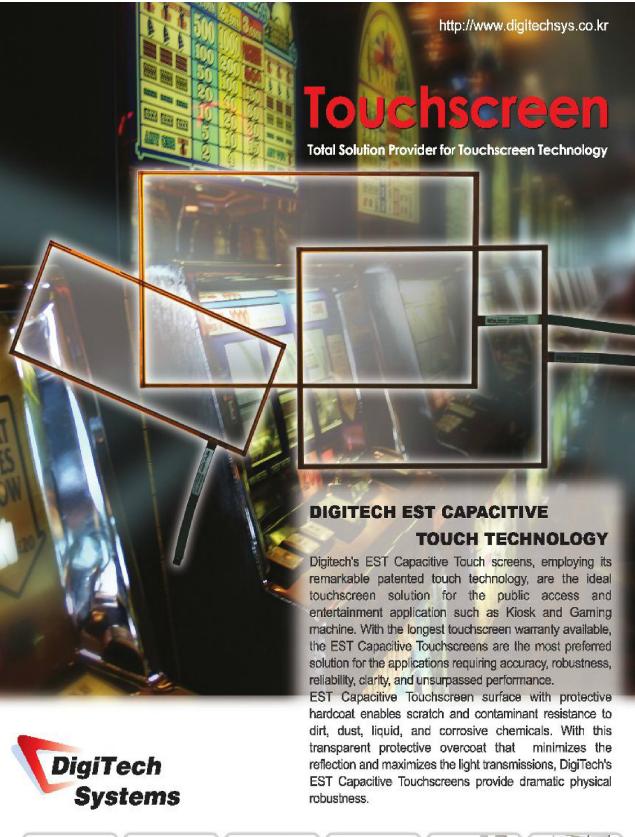
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Peace



Slot Tech Editorial

Subject: Aristocrat power problems To: pporath@slot-techs.com

Hi,

Reading your issue with Aristocrat problems in the January 2008 issue of Slot Tech Magazine, brought back memories of problems we had at mohegan Sun a few years back. We had a bank of 10 Aristocrat uprights, and every once in a while, a game would just go dead. We would throw power supplies at it, and everything else we could think of, and then all of a sudden it would start working. Once a game was down and waiting for a new power supply, and another game on the bank was shut down for another problem. Someone tried the game waiting for the poer supply, and it came up! What we found was that the power supplying this bank had low voltage, and Aristocrat power

Randy Fromm's Slot Tech Magazine

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supplies have a low voltage shutoff. Once in awhile the voltage
would dip too low, and one
machine would shut-off. With
that machine off, the others
would stay up! We changed to
heavier extention cords, and
moved the oultets around a bit,
and never had any more problems with that bank.

Drew Tracey

Dear Pat,

I just received my copy of the February issue of Slot Tech magazine and was glancing through the articles. I saw your quick and simple fix for IGT "Trimline" No Credit for a \$20 Bill and thought I would send you a message.

One day I was called to an AVP with bonus topper. The supervisor said that a customer had put in a \$20 bill and it didn't register. The bill was removed from the cash box and returned to the customer. The supervisor walked away and the customer put the \$20 bill back into the game. Again it did not register and the same supervisor came back and removed the bill from the cash box and put the bill into the machine himself. Again the \$20 bill did not register. The supervisor called me over that time to check out the problem. I looked at the game event log and saw that the "bonus device" had been causing a lockup. When I power reset the game the tilt cleared and \$60 in credits were issued.

I was a tech supervisor at the time and was continually reminding the technicians that these games have event logs that will help them in solving game issues. Some listen and some don't but even though I am mostly off the floor now I still go out to fix problem machines and find that technicians still don't take advantage of one of the best "tools" on the floor. Perhaps an article should be written on using this tool

I am not saying that this was the issue with your machine but I



don't like to use words like "Magic" when talking to customers. It doesn't instill confidence in your abilities to help them out though most probably don't take it too seriously and you did give them a plausable explanation before you left.

Thanks for your articles. I would have liked to have more like them when I was first working as a tech and am sure there are many techs out there that really appreciate your efforts. Sounds like you are still working with coins and the older machines. I RE-ALLY miss working on the old mechanicals and my motto was "If you ain't bleeding you ain't working." When I started I really didn't have much of a clue and our casino was in a deal to buy old junkers REALLY cheap from an old and established casino and it was my job to piece as many of them together as I could. It was stressful at first but I really learned a lot and loved every minute spent at our warehouse.

Thanks again,

Gordon Howe

Thanks for taking the time to write, Gordon

Randy Fromm

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Slot Tech Feature Article



ell, here we go again. Casino Regina is hosting another first of its kind launch, not just for Canada but for North America (or so I was told). We're the first site to officially install and run the latest creation from PGI. It's called Mysteries of the Nile, a four-level mystery progressive, running on the new Secure Progressive Controller SPC.

We're going to go over the installation of PGI's Impressions® LCD kit for the IGT S2000, the installation of the SIB and game configuration.

The kits came from PGI with everything needed to make this installation happen. However, there were some snags along the way that I will bring to light as well as where we feel things can improve for everyone else out there should your casino decide they want this on their floor.

Mysteries of the Nile

A Four Level Mystery Progressive

By Ted Befus

There were two different kits for each machine: One Impressions kit and one SIB kit. Figure #1 shows the contents of the Impressions kit. The kit contains a 15" Kristel LCD panel and the controller for that panel. On top of the controller you will see a small PCB. Its purpose is to convert the signal from the SPC into a format that the LCD controller can handle. There are a couple of power supplies and the associated cabling to connect everything. There are a couple of things not pictured. One is the LCD mounting bracket and a power cable to split the IGT 120V output in the

top box (before someone writes to me, I DO NOT mean the "Y" cable in the picture. There is a cable that connects to the IGT top box distribution that is not pictured here).

The installation of this kit is really quite simple on the S2000. Figure #2 shows the majority of the parts installed; behind the mounting bracket you see the LCD controller, and its power supply. The split power cable I mentioned can be seen hanging out of the game on the right hand side. It has a female end that couples with the Y cable in figure #1 to run



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both power supplies (the LCD and LCD controller).

We found a convenient spot to place the LCD controller behind the bracket. The LCD controller is run off of a flash card that contains a wealth of information as well as the machine's location on the link (we have 16 games on the link so the cards are addressed 1-16).

Next we will look at the SIB kit. The kit is laid out in figure #3. It includes the SIB, another power supply, the associated harnessing to interface the SIB to the game and to the SPC, and a connecting board (called an in-machine breakout board) to connect the SIB to the SPC and to the other games in the link. With the older style SIBS and controllers, each SIB had to be individually addressed. With the SPC and newer software, that is no longer a concern. You address the game through the operator menus and it connects to the SIB, giving its address. In the event that you need to change SIBs, you simply install a new one (making sure that the dipswitches are all in the off position and that the jumpers are set properly) and away it goes. The SIBs are connected to the SPC through the in-machine breakout board using RJ45 patch cords run through another connecting board (much like the SDS harmonica board I spoke about some time ago in the July 2006

article, Unlocking the Mysteries of the Mastercom 250 – Part 2). The SIB is interfaced to the game through the SAS Secondary port. Figure #4 shows the final location we chose for the SIB and the in-machine breakout board.

On the game side, there are a few things that have to be checked and turned on. Firstly you must access the keychip menu to enable Legacy System bonusing. This can be found in the Keychip Config menu under the Bonus menu. Open the System Bonus and enable Legacy Bonusing.

After you exit the keychip menu, you will have to access the Communications Options menu. In our case, we setup the bonus on the SAS Secondary channel to channel 1. The SAS address for the secondary channel must be set ac-

cording to the machine's position in the link. This must match with the machine number that is programmed into the LCD controller flash card. If these don't match, you can have bonus winners show up on the wrong machine display, which would cause just a few customer problems. While in the comm. Options menu you must also enable Legacy bonusing on the SAS secondary channel as well.

Now for the fun part of the article, my pet peeves. As this was a first time installation, I'll do my best not to come off sounding harsh or negative as that won't be beneficial to anyone but there are a few changes that could be made to make the install cleaner and easier.

There are two "Y" power splitter cables as well as



The kit

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CPA4038L	19" Aristocrat Upright w/o T/S	LCD for Aristocrat p/n 566498	\$607			
CPA4056L	19" Aristocrat Upright	Aristocrat WGF1990-TSLS92F	\$778			
CPA4062L	19" IGT Upright 25 pin	LCD for IGT Game King Plus	\$864			
CPA4064L	19V / 20" WMS Slant	LCD for WMS	\$849			
CPA4076L	19" SDG Upright 19 Pin	SDG 19V LCD 19 pin	\$835			
CPA4078L	19V / 20" Aristocrat Upright	LCD for ALI 19V (20")	\$839			
CPA4079L	19" SDG Upright 25 Pin	SDG 25 pin	\$835			
CPA4080L	19" Bally Upright	Bally 9000 Replacement	\$781			
CPA4082L	19" WMS Bluebird Upright	WMS Bluebird Replacement	\$780			
CPA4088L	19" Aristocrat Upright	LCD for Aristocrat USA	\$837			
CPA4096L	19" IGT Slant 25 Pin	19" LCD AVP Slant 25 pin	\$868			
CPA4097L	19" IGT Slant 19 Pin	19" LCD IGT Slant 19 pin	\$873			

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CERONIX, INC. 13350 New Airport Road Auburn, California 95602-2055 Phone: (530) 886-6400 Fax: (530) 888-1065 www.ceronix.com two cables to connect to the IGT 120V supply in the game. A lot of this clutter could be resolved by using a multiple output supply that has enough output current to drive the LCD and all the associated electronics. It would only need one connection to the game and in games that do not use hoppers; there would be more than sufficient room to locate it in the game.

Ahhh, next is the mounting bracket. Where do we start with that? I have only a couple of small beefs in regards to the bracket. Keep in mind that this kit is not a mass production kit and I'm sure there will be changes made like the ones we made on the fly. The holes for mounting the bracket on the floor of the top box did not match the stud pattern on the game. We simply ground off the studs in the game and attached the plate with selftapping screws. Also, once the bracket was installed it was impossible for us to get our hands back behind the screen to install the screws. One of our guys came up with a great idea, why not enlarge the holes in the top of each slot and install the screws into the LCD and then install it. The screws will pop through the larger opening and then slide down, locking into place. Great idea! Figure #5 shows the mod we made to the openings.



The LCD controller proved to be another small issue. Well, it wasn't really the controller as much as it was the SD cards that they

were running. When we first started testing the games (before we went live) we noticed that the meters ran very slowly and when a bonus hit, there was a considerable amount of lag between displays (each display plays the bonus as it happens). This was caused by the brand of SD card in the controllers.

When this

was originally tested, PGI used a different make of SD card and did not have any of these issues. I would have to guess that the



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different cards must have had different specs making access time slower on the cards that were shipped to us. To fix this, PGI supplied new cards to us which made things much better.

Next, aside from the LCD controller and the bracket there are three different boards to run this setup. Can they not all be contained in one enclosure? It would make all the cabling run to a central location and would clean up nicely. I'm not asking them to reengineer all of these onto one main PCB (although that would be sweet) but at least if they were in an enclosure it would be easier to install.

While we are on the subject of boards, can you vendors please put locking connectors on your PCBs? When you have a ten pin connector that's only using two wires, it's not hard to figure that it won't be a really secure connection. I was told that these boards originally were meant to be used with ribbon cables which would have had a much greater affect on the strength of the connection but because of static issues, they went away from the ribbon cable idea.

As a solution to the connectors falling out, we make it standard practice now to hot glue all connections like that to make certain that they don't come loose when we don't want them to.

All in all, the total package looks great. MIKOHN made custom glass for each game, as the paytable had to be moved from the top to the bottom (we won't get into the headaches that the glass caused but it was not the fault of MIKOHN. We'll leave it at that).

I must say that the graphics on the Cool Sign are quite good. The background on the meter screen is terrific; you can see rippling water and can even see slaves building the pyramid in the background! However, that sharpness and clarity does not carry over onto the game LCD. The graphics on the meter are OK but the clarity of everything else is somewhat lacking.

to the floor on the first morning and as I walked up he was speaking to someone on a cell phone. When he was done, he handed the phone back to our Canadian rep. Now, I'm kind of a smart alec, so I asked why PGI doesn't supply him with a cell phone. He replied, "I have one, it's in my pants pocket." He reaches into his pocket and pulls out the TV REMOTE from his hotel room! We all burst out laughing! Its things like that which help make these installs bearable sometimes. Who couldn't use a good laugh at work!

> - Ted Befus tbefus@slot-techs.com

Now, what better way to end this article than with a

funny story? We had two representatives from PGI on site to assist us with this install, one from the Canadian office and one from PGI Las Vegas. To protect his identity I won't mention names. The fellow from Vegas had never been to Canada before and I think the time change and the lack of any noticeable heat outside really took a toll on him. I came up



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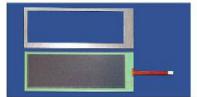
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Slot Tech Feature Article



The Plow

The card reader-cleaning tool that really works

By Willoughby C. McCance

an example that sticks out in my head—there were many, many other instances of similar events.

I was making rounds on the floor when a woman flagged me down. Her favorite machine would not accept her player card and the irritation showed on her face as I approached.

"I can't play this machine. It won't take my card. This is my lucky machine. I play it every Friday between nine and 11. Those are my lucky hours. I have to get on this machine. You need to fix it now."

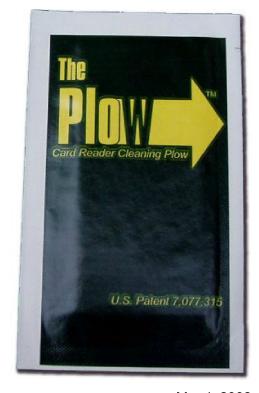
I explained that I'd have to take the machine offline and that I would need to replace the card reader. I told her she might want to play another machine until I got that one up and running again. "No, I'll wait right here. I don't want someone else to get this machine. It's after 9 already. Will you do whatever you need

am a senior slot technician with many years of experience working with the player point tracking card readers at the Mohegan Sun casino in Uncasville, CT. From the beginning of my employment there, the casino stressed its core values and asked its employees to embrace these values with the goal of providing the best possible experience for our customers. Three of these values were "continuously striving for perfection", "bottom line performance", and "blowing away the customer", making their experience memorable and one they want to repeat over and over.

I am a strong proponent of providing customer satisfaction in my job and I look for ways to improve on what I do. That's what led me to develop the PlowTM, a new technology in card reader cleaning cards.

It didn't take long to see the frustration of slot machine players who were unable to use their player's card in their favorite machine. I'll give you





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SlotFest

Featuring TechFest 17 May 6-8 2008 Mystic Lake Casino - Prior Lake, MN

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TechFest 16 also includes a presentation on monitor repair (CRT & LCD) presented by Slot Tech Magazine publisher Randy Fromm. Learn some very easy ways to fix monitors without wasting time and without an extensive background in electronics.

Who Should Attend?

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