

Data Skimmers in Motor Fuel Dispensers

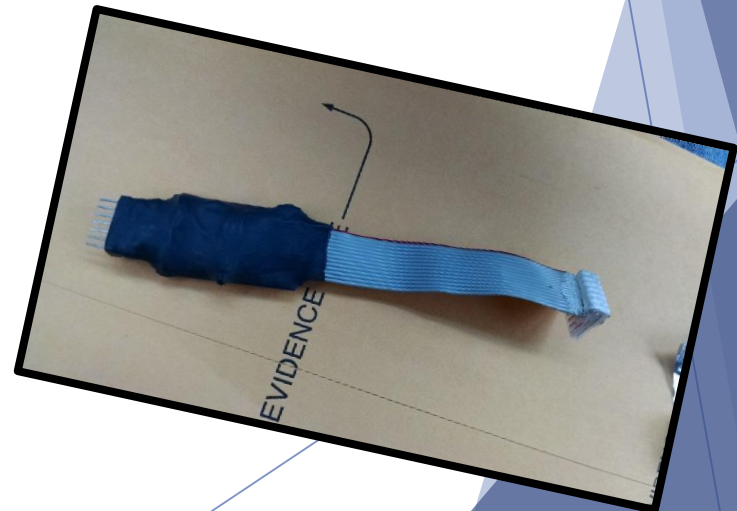


Western Weights and Measures Association Conference
September 26, 2017

What are skimmers?

- They are illegal devices that 'capture' customer card info
- Connected to the credit card readers
- Installed inside fuel dispensers, ATMs, point of sale
- Their presence is increasing
- Their design and technology is changing

It only takes 7 to 8 seconds for a criminal to install a skimmer in a fuel dispenser!!!



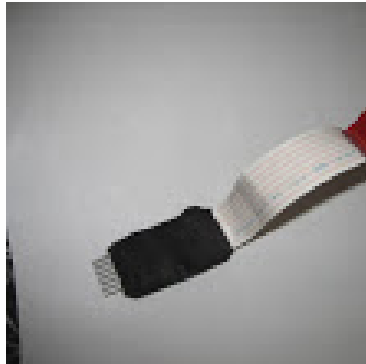
What do criminals do with the skimmer data?

- Re-encode card numbers on magnetic stripe cards
- Purchase gift cards and other merchandise
- Sell data on “dark web” for other criminal use
- Proceeds used to fund other criminal activities



What harm is caused?

- Skimmers cause fraud, which is costly to...
 - Consumers
 - Businesses
 - Financial institutions
- The equipment needed to make and install a skimmer is relatively inexpensive and easy to obtain



CREDIT CARD SKIMMER
FOR SALE GAS PUMP

skimmermanufacture.net

Who should be concerned about skimmers?

- Business owners accepting credit cards
- Law enforcement
 - State, county, and local police
 - United States Secret Service
 - FBI
- Consumers
 - Review statements for fraudulent purchases
 - Ask retailers what security measures they have in place
 - Let retailers know if they see something suspicious
- Financial institutions



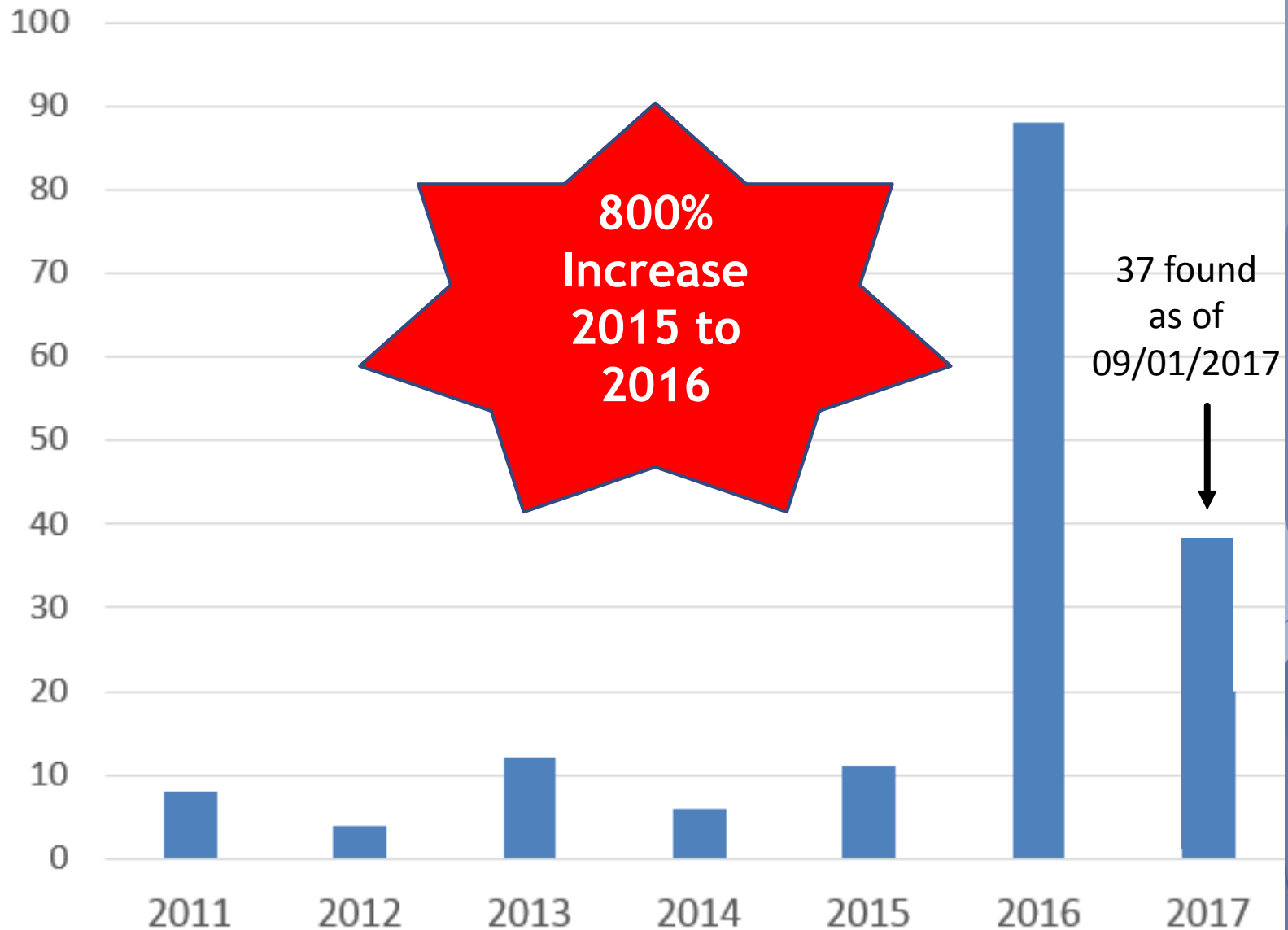
How is Weights and Measures involved?

- We license and inspect fuel dispensers
 - Actively checking for skimmers for over 10 years
 - Educate fuel retailers regarding inspections and security measures
 - State “clearinghouse” for tracking fuel station skimming activities
 - Respond and investigate reports of potential skimming activity
- License Registered Service Representatives (dispenser service technicians)
 - New rule requires service technicians to report the discovery of skimmers

**Together we can combat
this costly crime!**

Arizona data – Fueling

Number of Skimmers Found/Reported Per Year



Estimated costs in Arizona

Year	# Skimmers	Estimated Cost	High Cost
2011	8	\$882,400	\$44,120,000
2012	4	\$441,200	\$22,060,000
2013	12	\$1,323,600	\$66,180,000
2014	6	\$661,800	\$33,090,000
2015	11	\$1,213,300	\$60,665,000
2016	88	\$9,706,400	\$485,320,000

Estimated Losses:

Direct Loss Per Victim = \$1,003

Indirect Loss Per Victim = \$100

Low Cost = 100 Victims per Skimmer

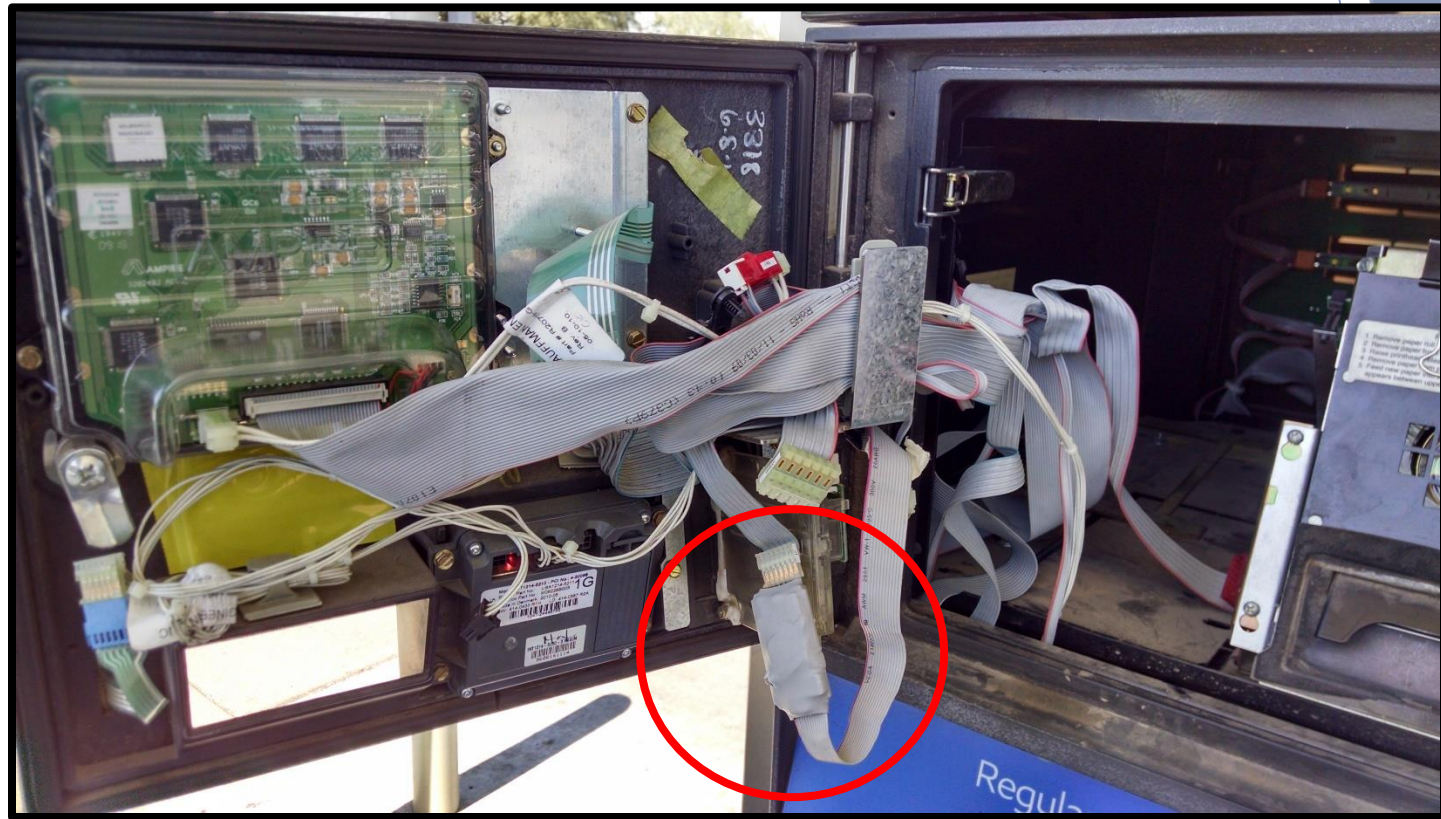
High Cost = 5,000 Victims per Skimmer

Estimates from "Estimating Annual Losses From Payment Card Skimming Fraud in Florida," Sergio Alvarez, Office of Policy and Budget, Florida Department of Agriculture and Consumer Services, January 2016

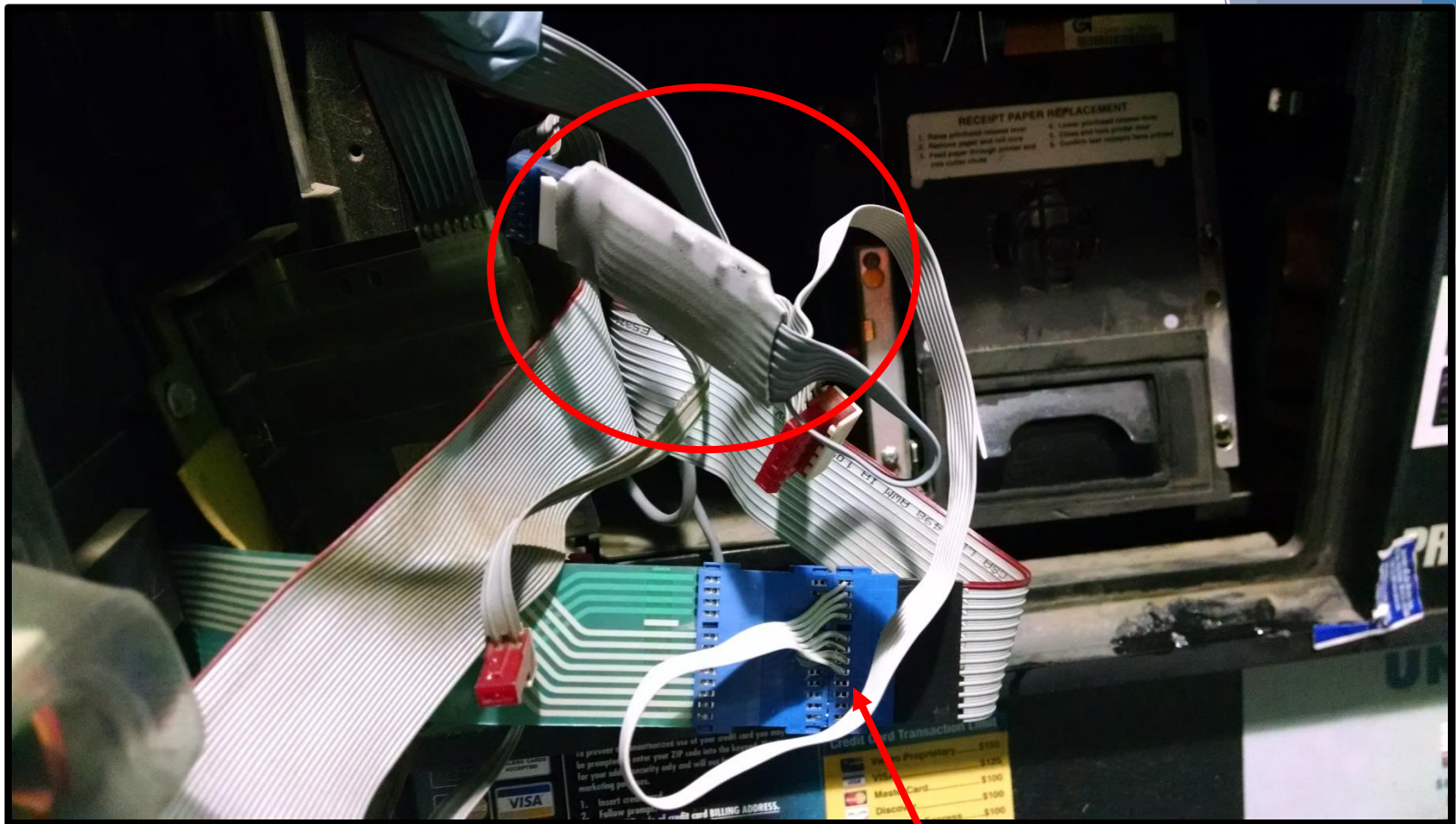
About dispenser skimmers...

- Installed internally in the dispenser
- Attached to the card reader (some directly attached)
- Most are attached to wiring
- Some attached to keypad to capture PIN
- Some must be retrieved to get the card data
- Others are Bluetooth-enabled and do not need to be retrieved from the dispenser
- SMS-enabled skimmers

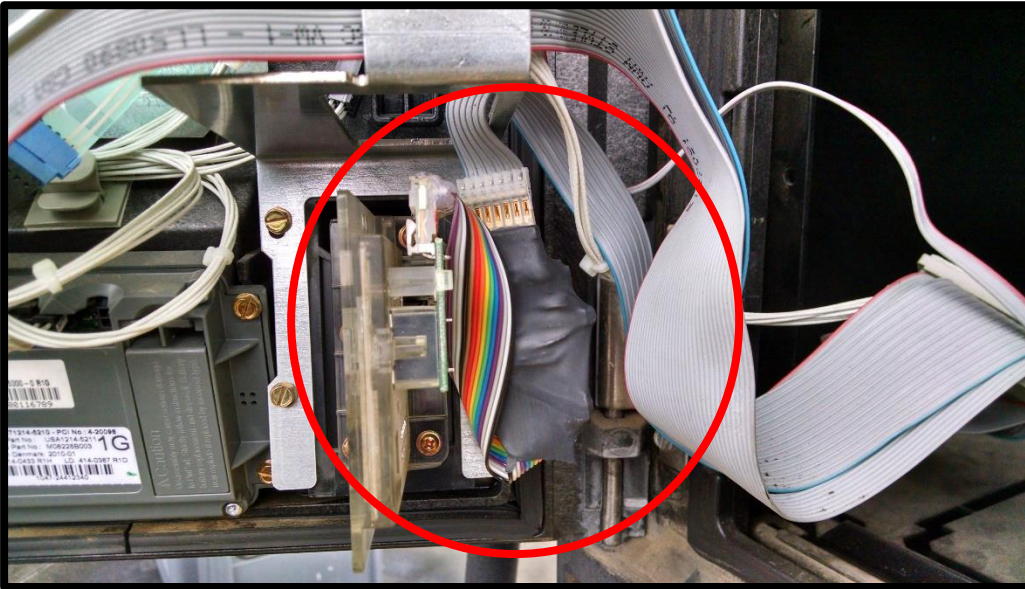
Various skimmers recovered in Arizona...



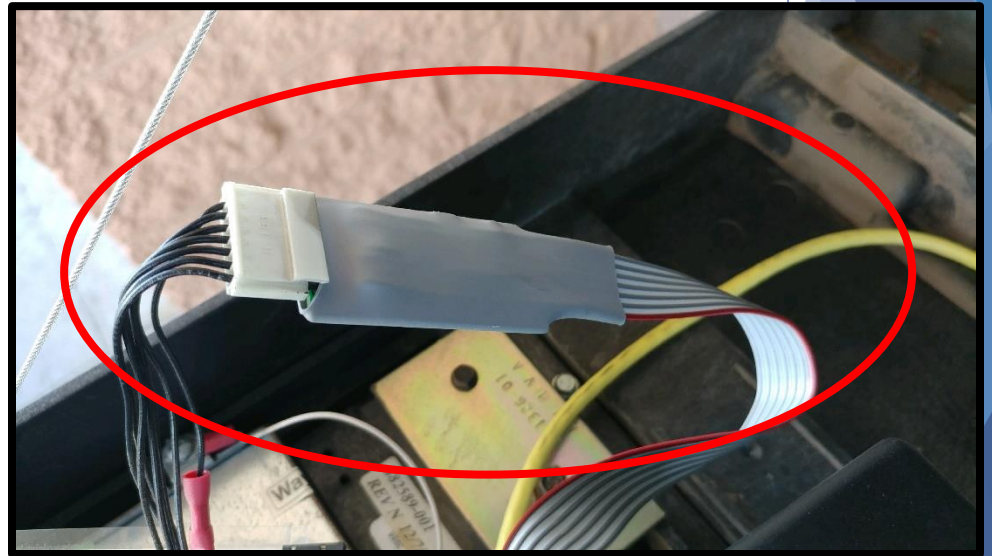
Skimmer plugged in-line w/ card reader



This skimmer is also connected to the PIN keypad



Skimmers come in many shapes, sizes, and colors



Criminals will try to conceal skimmers by making them blend in with existing equipment...



... or even try to hide them deep inside the dispenser.

Can you find the skimmer?

Gilbarco Advantage dispenser CRIND tray

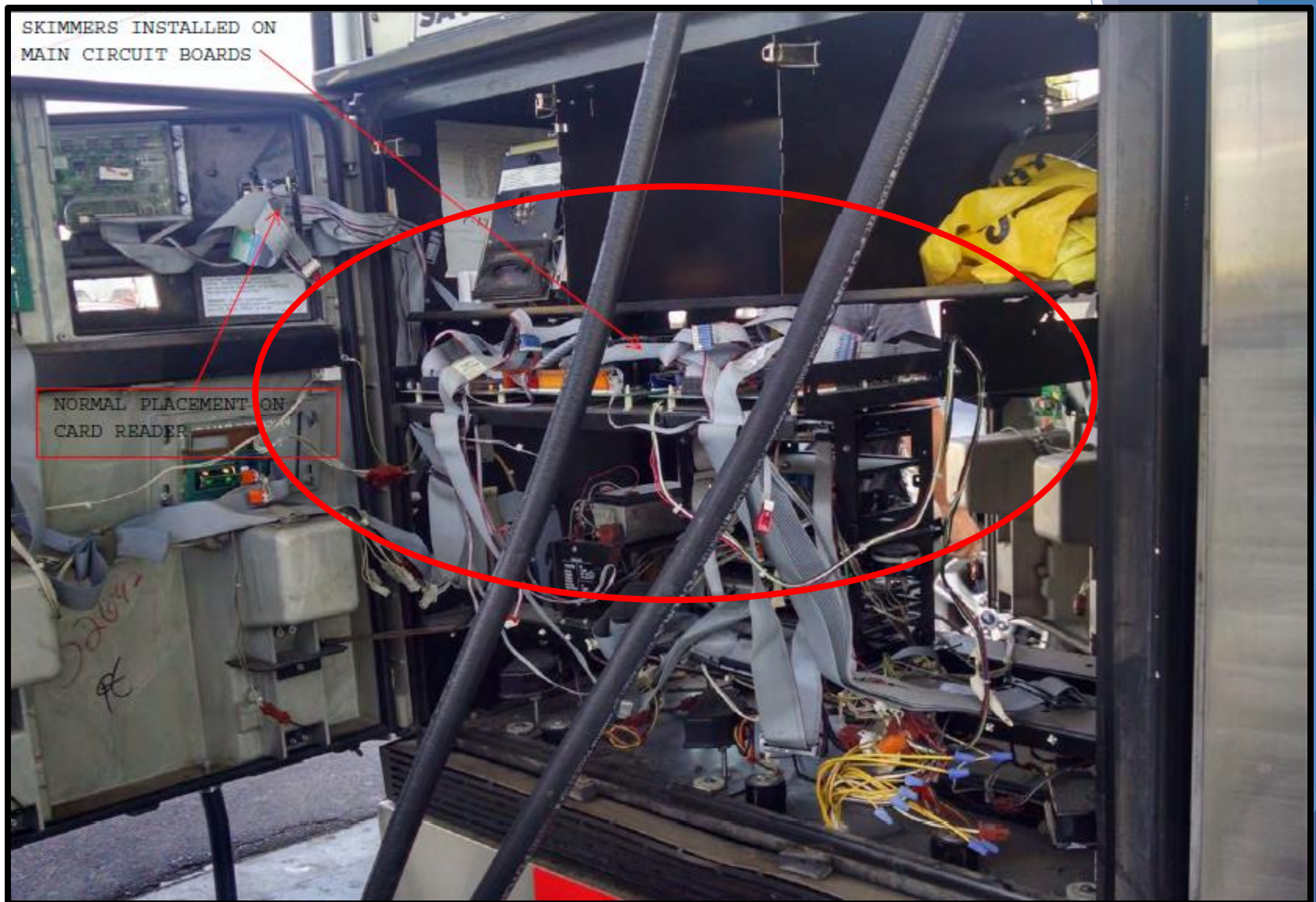
The CRIND circuit tray is accessed by
opening the front panel of the dispenser



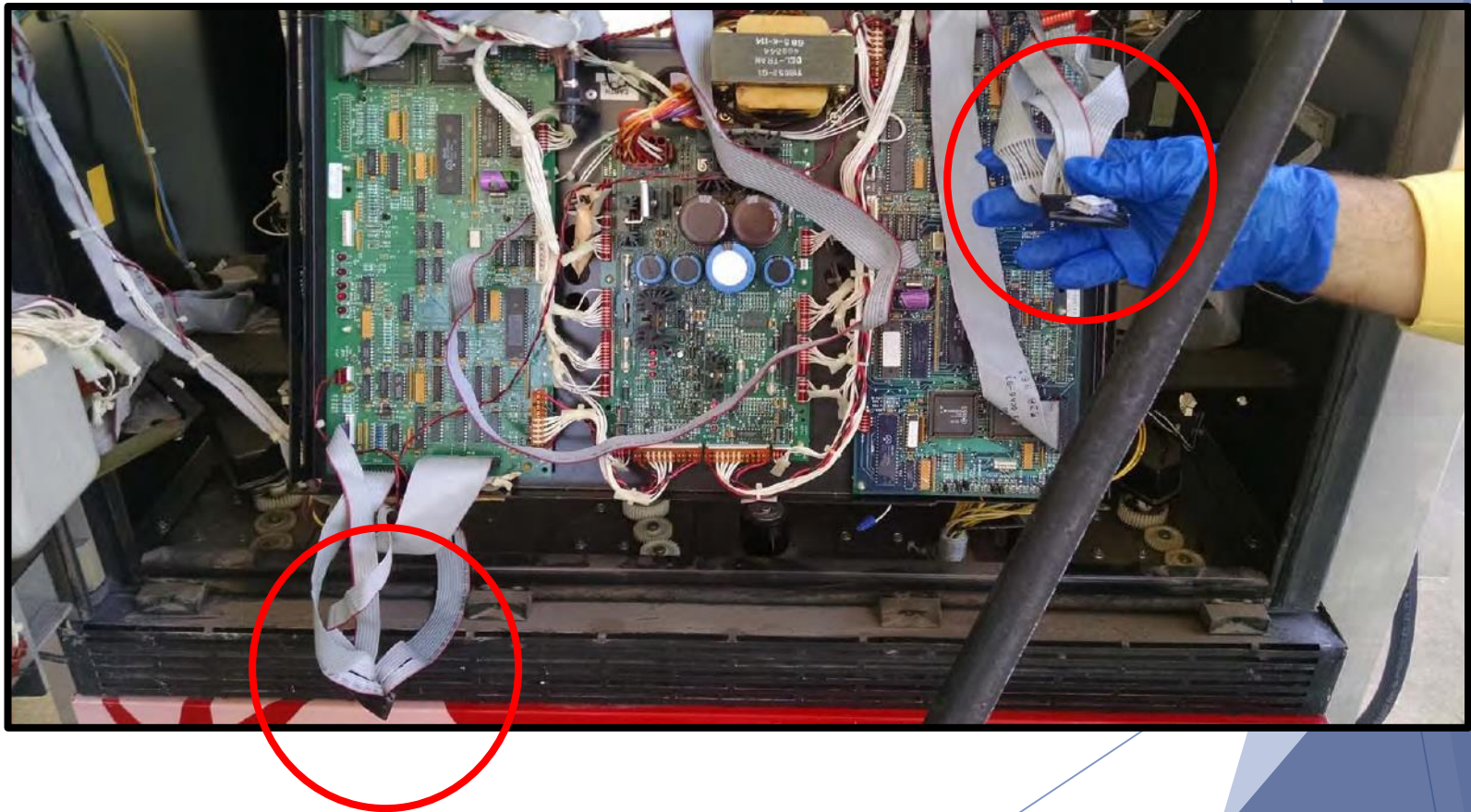
CRIND = Card Reader IN Dispenser



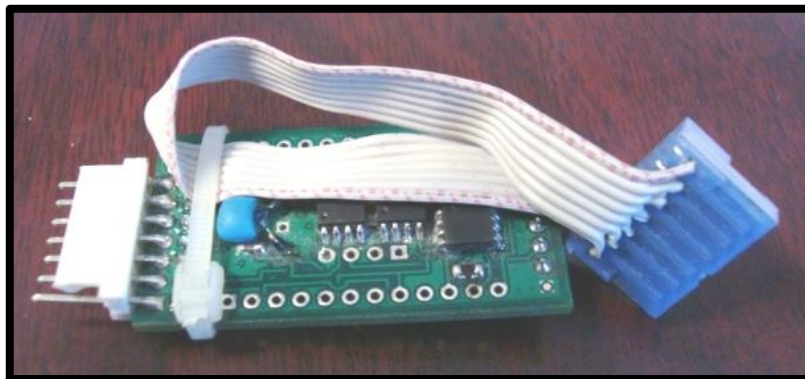
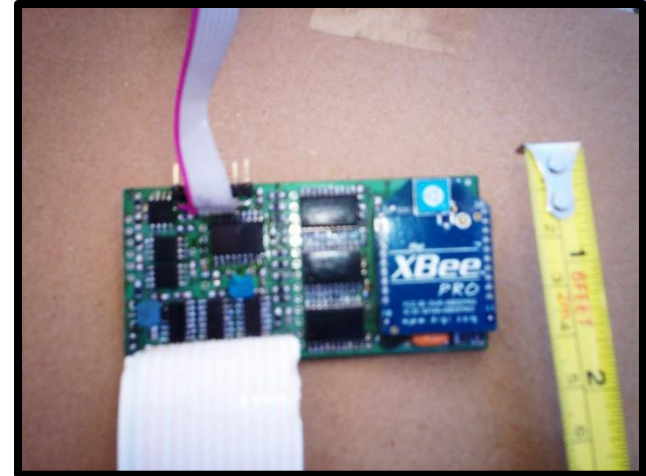
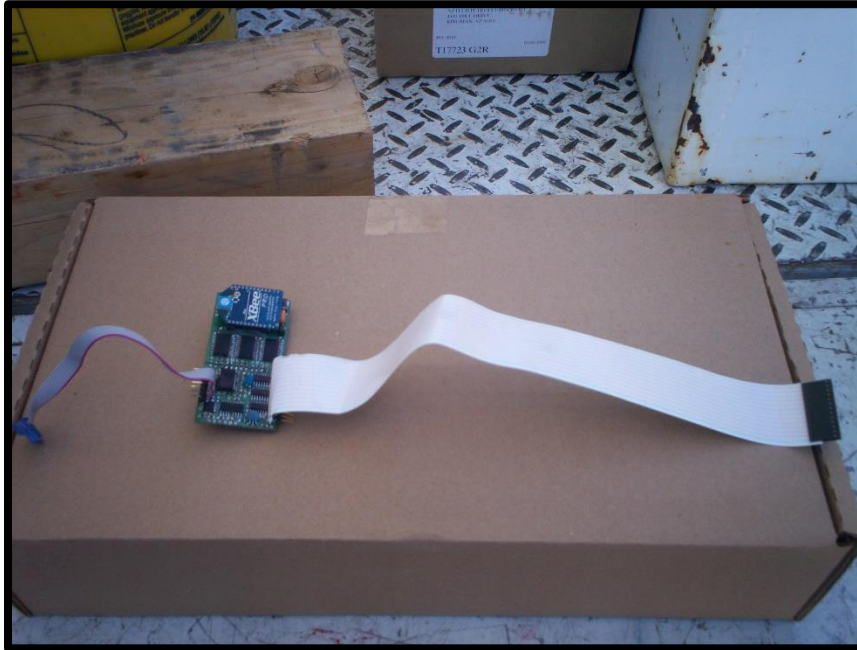
The CRIND tray is located in the middle of the dispenser



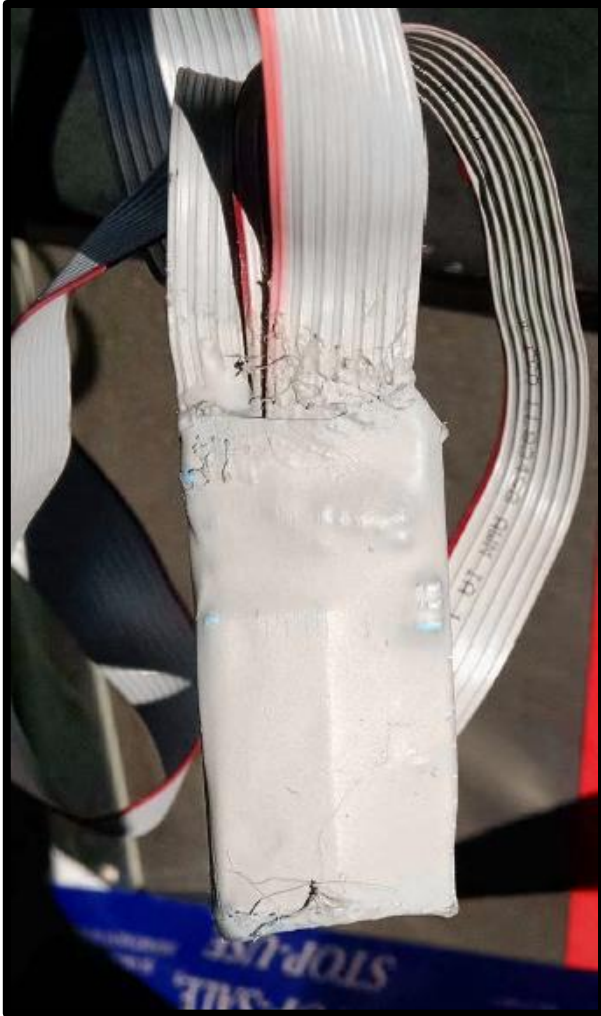
Skimmers installed on both sides of the CRIND tray...



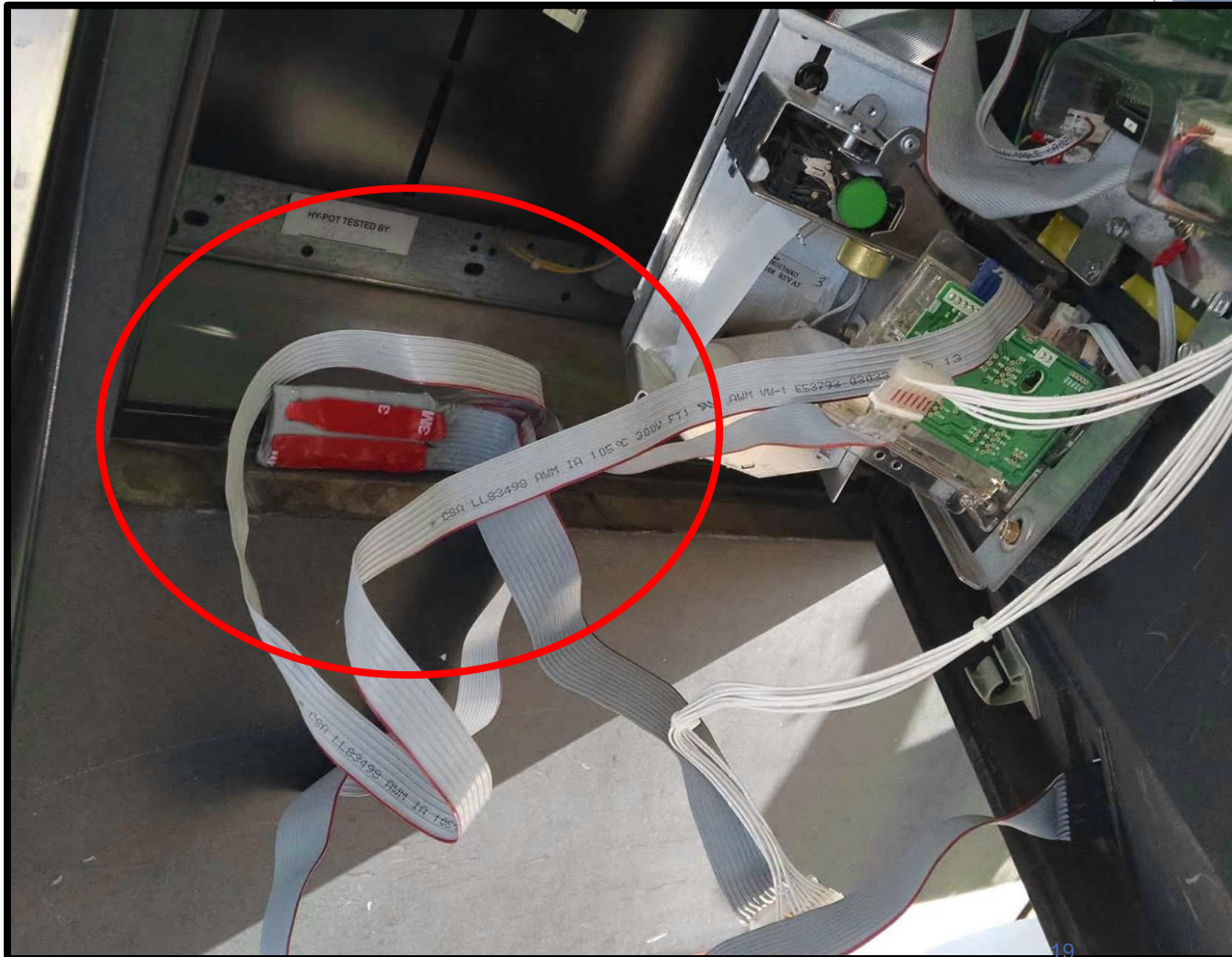
Various “plug-in” skimmers



More “plug-in” skimmers

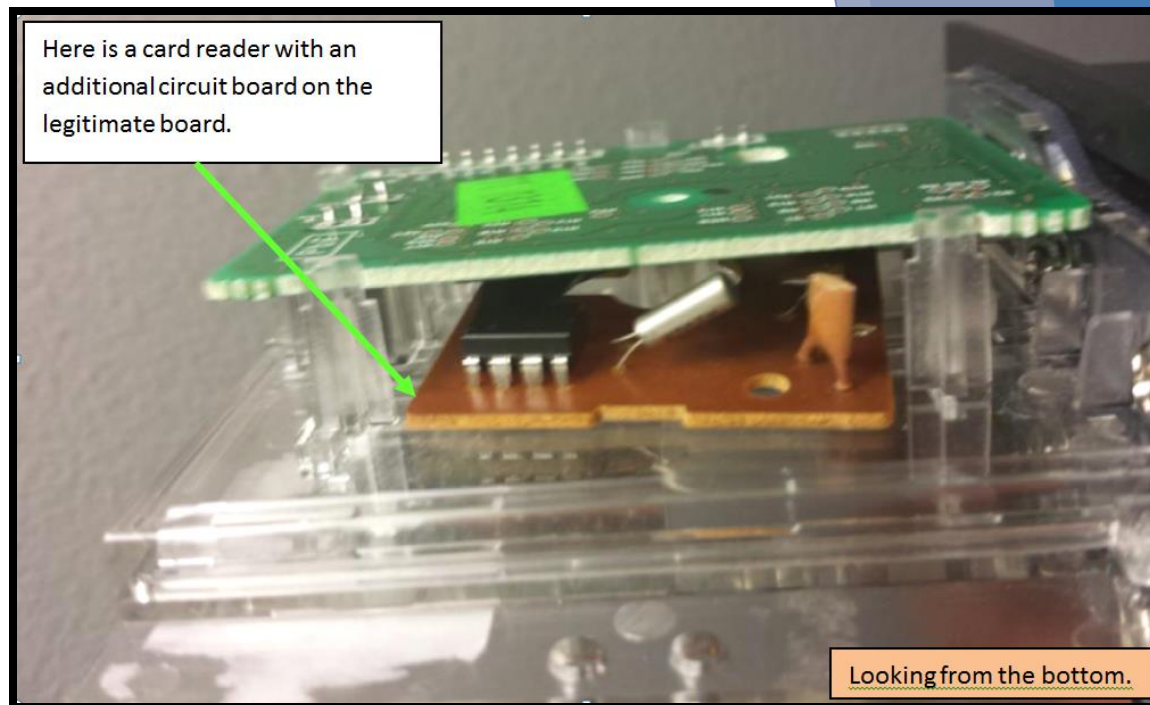


Skimmer w/ 3M tape



FBI bulletin on skimmer attached directly to card reader (2015)...

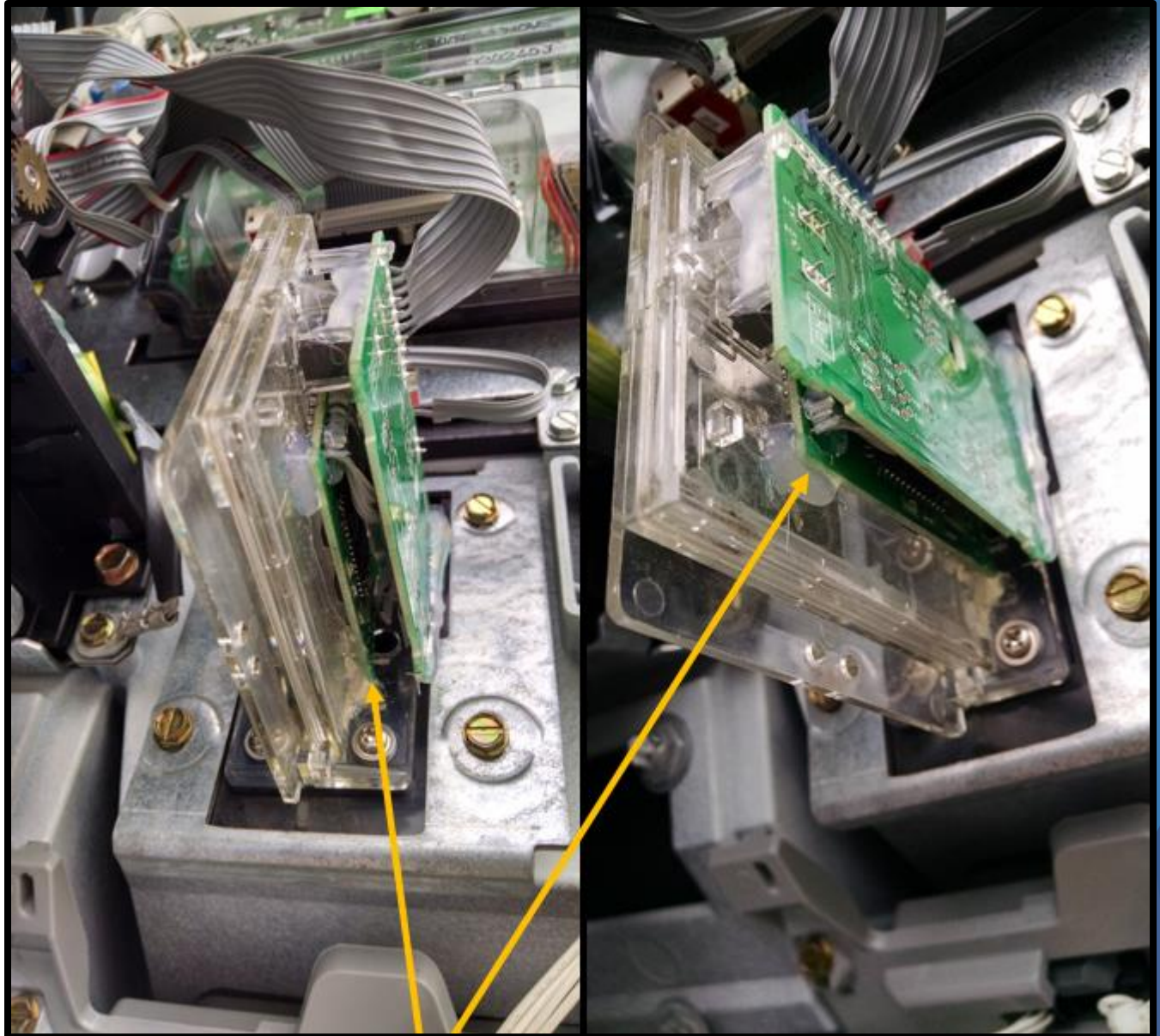
In this case, the criminal removes the entire card reader and installs one with a skimmer attached.



Here is one that was found in Arizona in 2016.

Note the clear “globbs” of silicone attaching skimmer to card reader.

This device was suspected to have Bluetooth capability.



Overlay skimmers

Overlays slide over the existing area where a consumer would insert their credit or debit card. Here is one that was discovered on an ATM...





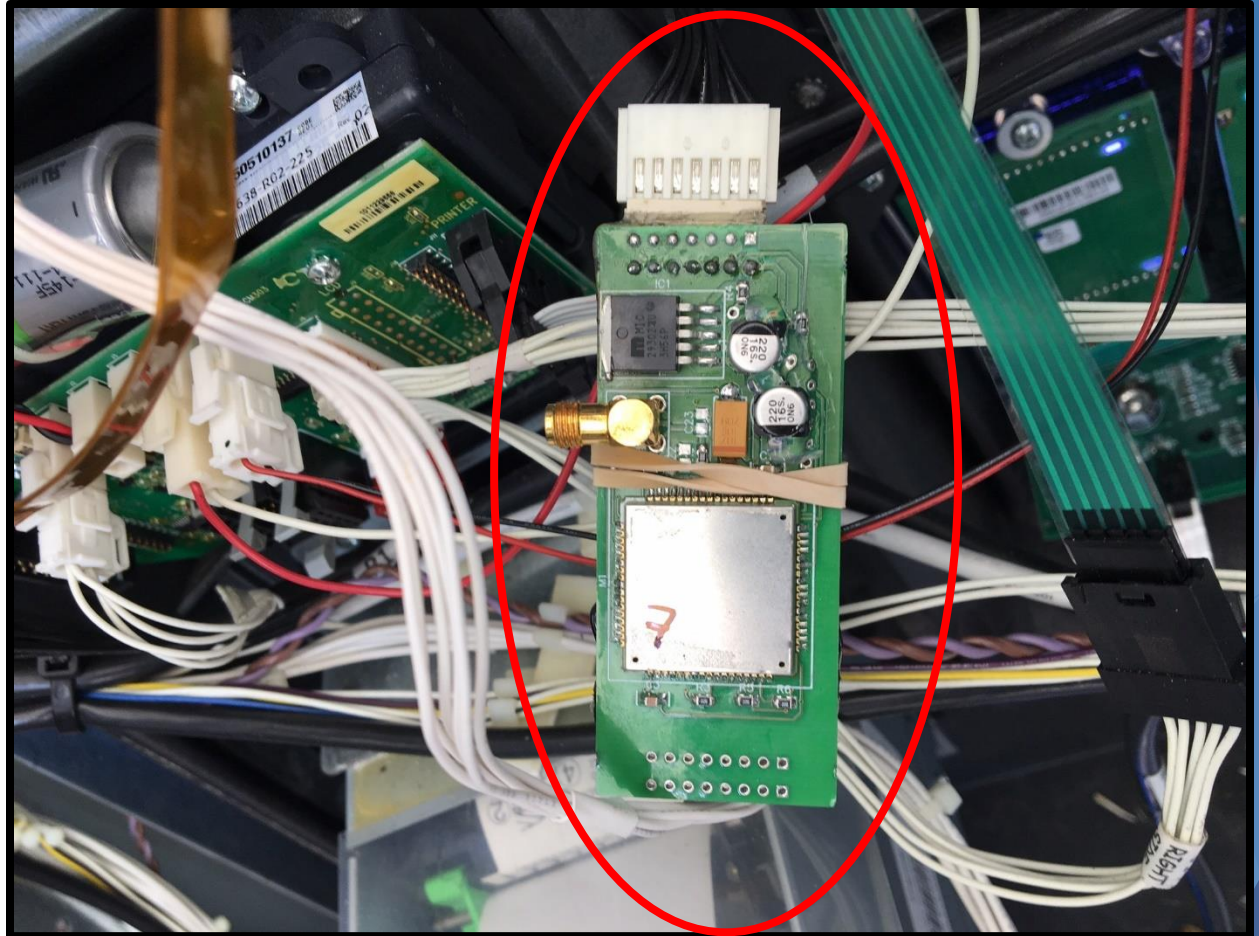
CAN YOU TELL THE DIFFERENCE? Hint: The 'skimmer' is on the right.

SMS skimmers

The newest type of skimmer.

These skimmers utilize cellular phone components to send copied credit card data via SMS text message.

This skimmer was located in Florida earlier this year.



Criminals placed a sticker on the card reader door panel to show evidence that the skimmer had been tampered with.



Residue left after sticker was removed



What to do if you find a skimmer...

- We ask that employees follow our “skimmer procedure.” This was developed in conjunction with Law Enforcement and has proven to be highly effective.
- If a skimmer is found, do the following:
 - ❖ **DO NOT TOUCH** the suspect device... doing so may disturb physical evidence left on the device (fingerprints, hair, etc.)
 - ❖ Bag/place the pump out of service
 - ❖ Take “quick” photos of the device as it was found
 - ❖ **Immediately** upon discovery,
 - Contact the Department of Agriculture, Weights & Measures Services Division;
 - Your Maintenance and Loss Prevention divisions;
 - Your local police department
- Print out the last receipt from the pump where the device was discovered
- Save all video surveillance
- Again, **DO NOT TOUCH** the suspect device

Efforts in Arizona

- Inspect for skimmers during all fueling device, fuel quality, and vapor recovery inspections
- Skimmer form
 - ❖ Special form completed when a skimmer is found
 - ❖ Designed with input from law enforcement and financial institutions to contain important information (pump location, device construction, Bluetooth capability, security measures, etc.)

Efforts in Arizona, cont.

- “Skimmer Alert” sent via e-mail when a skimmer is found
 - ❖ Distribution list includes law enforcement, financial institutions, major fuel retailers, fuel associations
 - ❖ Includes location, skimmer information form, pictures
 - ❖ Also distributed to IAFCI members (International Association of Financial Crimes Investigators)
- Summary of inspection sent to location where skimmer was discovered
 - ❖ Includes recommendations on regular inspection practices and security efforts

Efforts in Arizona, cont.

- Radius inspections when a skimmer is found
- Inspector evidence collection training
- Statewide inspection for skimmers
- Post locations on website, increased media
- AZPOST video for law enforcement training

Efforts in Arizona, cont.

- Stakeholder meetings, open communication with law enforcement, financial institutions, retailers
- Senate Bill 1294 passed May 2016
 - ❖ Increased penalties for skimmer crimes
 - 2nd degree trespass, 3rd degree burglary for unauthorized access to devices used for commercial transactions that accepting electronic or physical currency
 - Unlawful possession and use of scanning devices from class 6 felony to class 4 felony

Are skimmers going away?

****Chip card liability shift postponed at gas stations
from October 1, 2017 to October 1, 2020**

TODAY'S TOP STORIES




Crooks are selling a skimmer that works on all chip card readers




Credit: Zach Miners

Think that your new EMV-compliant chip-reading point of sale terminal will keep crooks from stealing your customer credit card info?

MORE LIKE THIS


-  EMV transition involves many moving parts
-  What you need to know about chip-embedded credit cards
-  EMV sets the stage for a better payment future

on IDG Answers 

What does com.android.mms mean?

SAMSUNG

Keep moving.

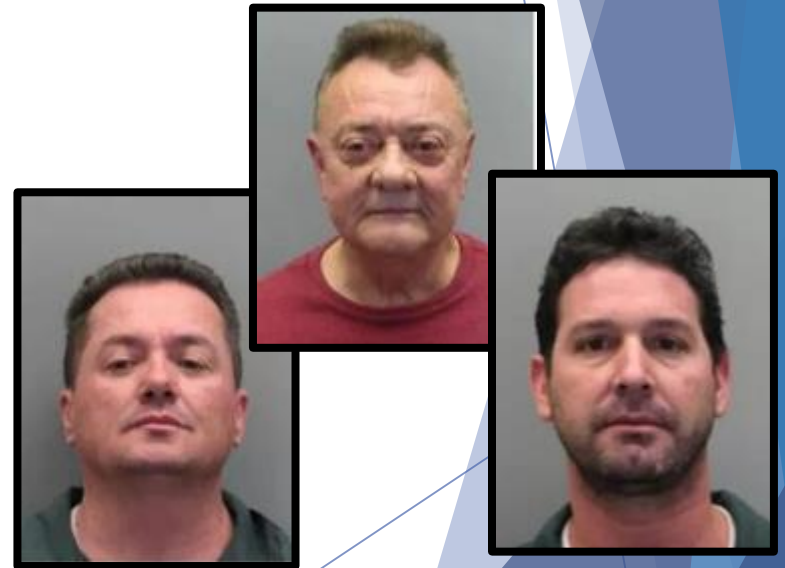
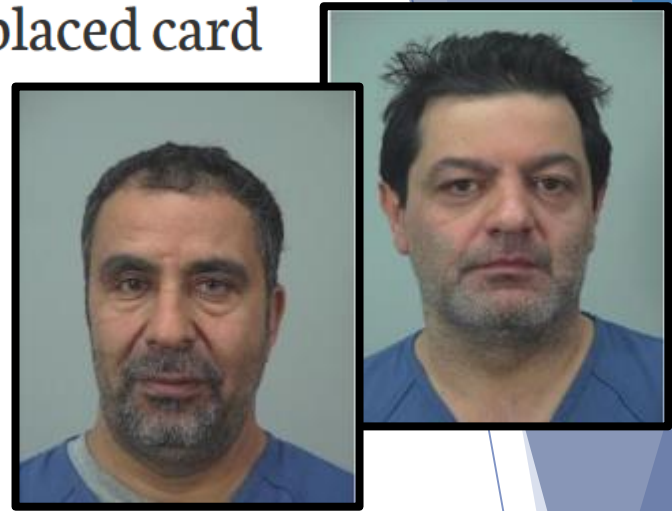


Madison police arrest 2 believed to have placed card skimmers on gas pumps

ED TRELEVEN etreven@madison.com Nov 18, 2016

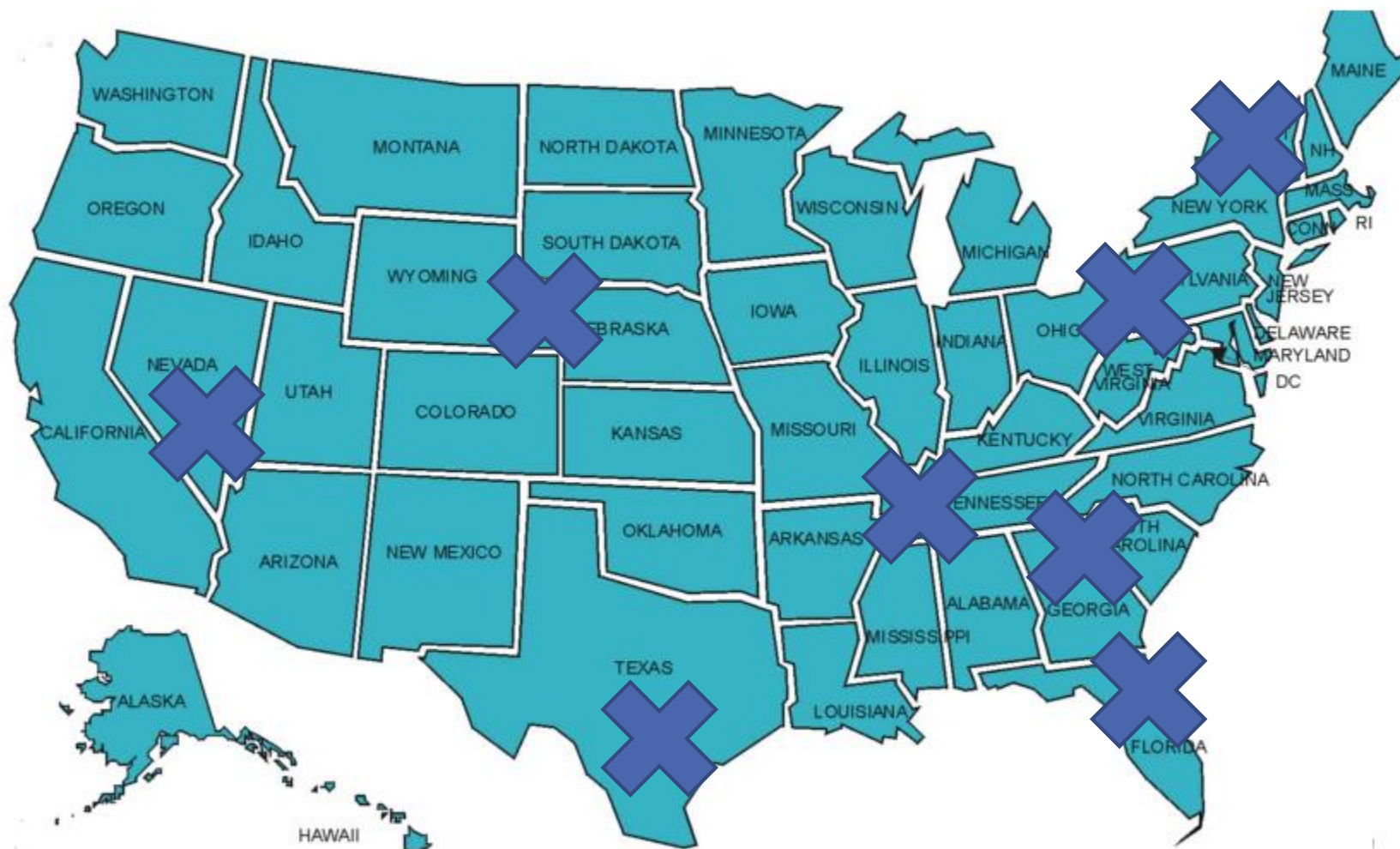


Image captured near Picacho Peak, AZ of 2 men posed as service technicians attempting to retrieve a skimming device



3 arrested in credit card skimmer bust at Falls Church gas pumps

Mar 18, 2017 1



Evidence collection

- Chain of custody...

- Definition:

The movement and location of physical evidence from the time it is obtained until the time it is presented in court. Every transfer of evidence from person to person needs to be documented so that it is verifiable that nobody else could have accessed or tampered with that evidence.

- Who, what, when, where, and how...

Chain of custody example

What, Where, When



ON 01/05/2015 AT 0721 HOURS I RESPONDED TO 20203 N 67TH AVE THE CIRCLE K IN REFERENCE TO A FRAUD CALL. CALL NOTES STATED THAT A CARD SKIMMER WAS FOUND INSIDE OF PUMP 3.

Who



UPON MY ARRIVAL I MET WITH ARIZONA DEPARTMENT OF WEIGHTS AND MEASURES INVESTIGATOR PR1, LINDA WETZEL, WHO TOOK ME OVER TO PUMP NUMBER 3. THIS PUMP WAS THE FARTHEST PUMP NORTH WEST OF THE STORE. LINDA OPENED THE PUMP AND POINTED TO WHAT APPEARED TO BE AN ELECTRONIC ADAPTER THAT WAS CONNECTED TO THE CIRCUIT BOARD THAT READS THE CREDIT/DEBIT CARDS. THE ELECTRONIC PIECE APPEARED TO BE WRAPPED IN A BROWN FABRIC.

BE DOWNLOADED INTO THE DIMS SYSTEM AS EVIDENCE.

PRIOR TO REMOVING THE DEVICE I NOTICED THE RED CIRCLE K SECURITY TAPE WAS NOT STUCK TO THE CONNECTION OF EITHER PIECE OF ELECTRIC DEVICE. IT WAS ONLY STUCK TO THE SECURED BASE.

How



USING LATEX GLOVES I REMOVED THE ELECTRONIC SKIMMER AND PLACED IT IN A PROPERTY AND EVIDENCE PLASTIC BAG. I REMOVED THE SECURITY TAPE AND PLACED IT IN A SEPARATE PROPERTY AND EVIDENCE BAG. BOTH ITEMS WERE TAKEN TO THE GLENDALE POLICE MAIN STATION LOCATED AT 6835 N. 57TH DR. THERE I HAND DELIVERED THE ITEMS TO GLENDALE DETECTIVE T. WARD 13015 OF THE GLENDALE FINANCIAL CRIMES SQUAD.

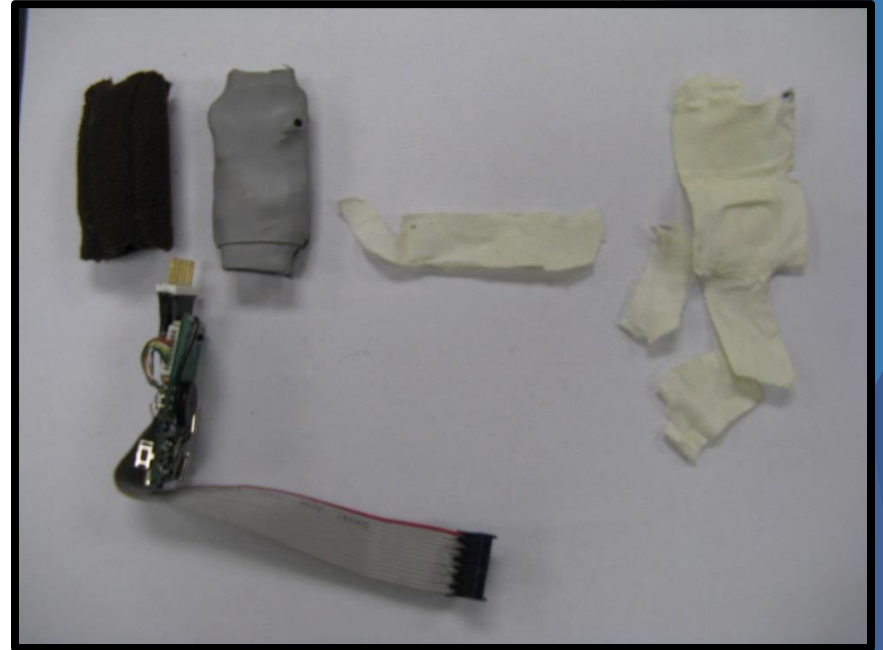
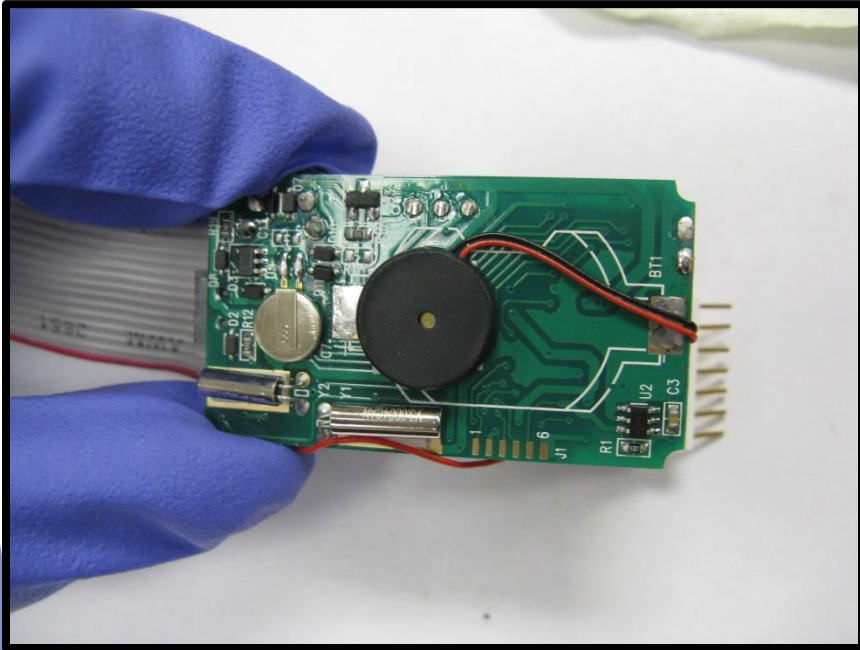
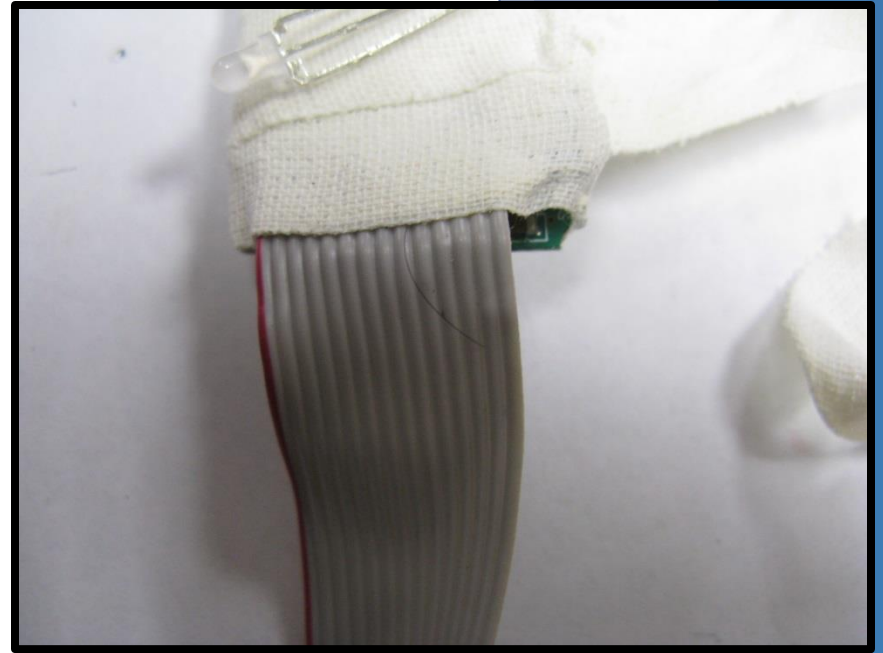
JOSEPH ADVISED THAT CIRCLE K DESIRES PROSECUTION FOR THE FRAUD AND PLACEMENT OF THE SKIMMER IN THE MACHINE.

I PROVIDED LINDA AND JOSEPH BOTH WITH VICTIMS RIGHTS FORMS WITH MY NAME AND ID NUMBER AND REPORT NUMBER.

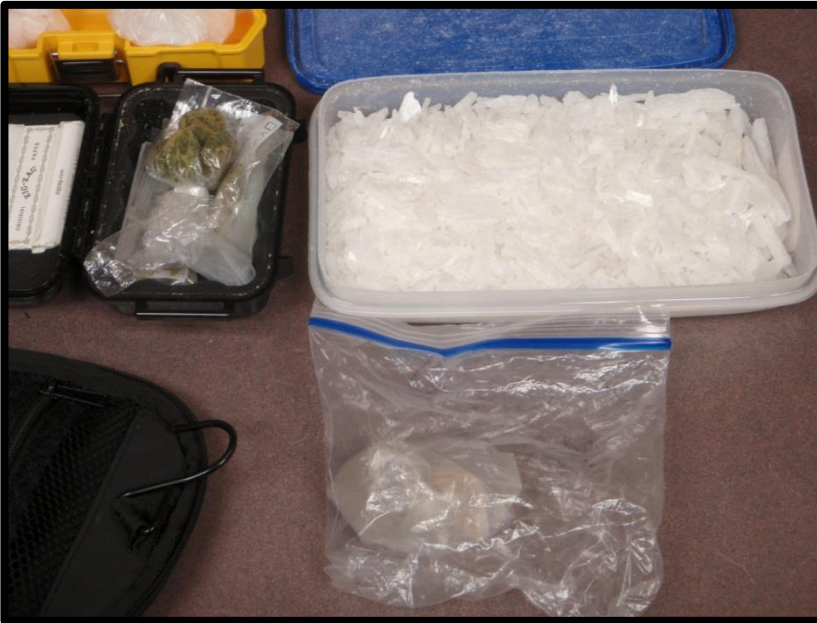
THIS CONCLUDES MY INVOLVEMENT IN THIS MATTER.

Evidence collection procedure

- Glove-up, use non powdered disposable gloves
- Place evidence in some type of evidence bag. Paper bag, Manila Envelope, zip-top bag... Seal top and initial if applicable.
- Keep items separate
- Handle as little as possible



What skimming leads to...



Asset: B4522236
Case: 11-029743
User: 13015
Agency: Glendale PD
Date: 2016/05/19 07:10:50

Glendale PD, March 2017



Goodyear PD, Sept. 2016



Goodyear PD, Sept. 2016



Questions?

Arizona Department Agriculture,
Weights and Measures Services Division
Kevin Allen

Vapor and Fuel Program Compliance Manager
kallen@azda.gov, 602-771-4939

Report a skimmer: dwm@azda.gov, 602-542-4373

Office of the Attorney General, Criminal Division
Don Carroll
602-542-7940
donald.carroll@azag.gov

City of Glendale
Police Department
Detective Tom Ward
623-930-3091
tward@glendaleaz.com