



MDL autoMation™
Innovation at Work™

MDL
Service Drive
Concierge™
LPR

MDL
Service Drive
Concierge™
RFID

SERVICE DRIVE CONCIERGE™

Put Your Dealership
In The Fast Lane

RFID Vs. LPR
Identification Methods

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www.MDLautoMation.com

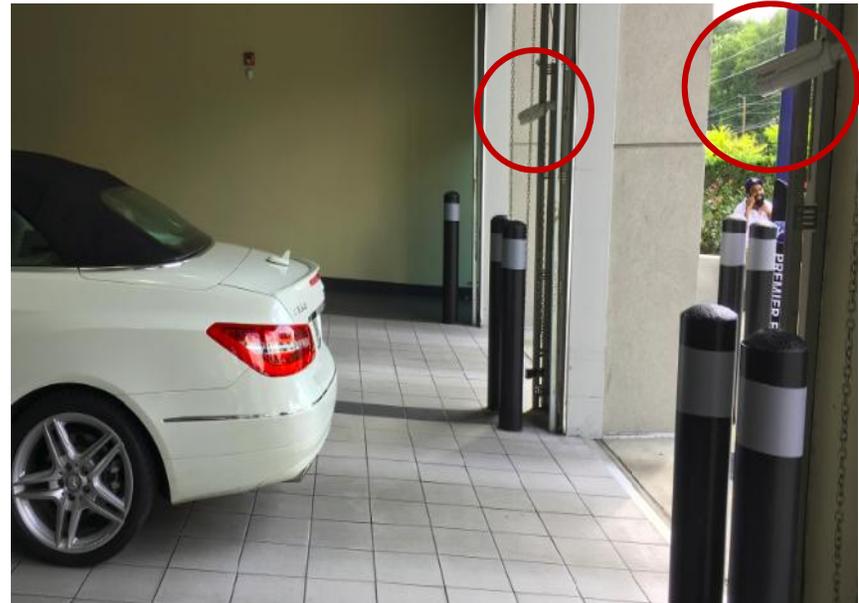
SDC™ RFID Edition:

- ▶ Passive RFID technology
- ▶ Can identify / track all retail inventory and guest service vehicles



SDC™ LPR Edition:

- ▶ NEW License Plate Recognition (LPR) Technology
- ▶ Avg. ID 90+% of guest service vehicles



RFID Vs. LPR Edition -- Key Differences

Equipment & Installation

Comparison Point	RFID Edition	LPR Edition
Required Infrastructure	(1) 110v power drop & (2) data runs (POE or non POE) per RFID reader (readers support up to 4 Antennas)	Single POE data drop for each installed camera
Equipment per service lane or car wash tunnel	(1) RFID antenna with Coax run to RFID reader	Single LPR camera (color or IR based on lighting)
Mounting style	External mounting on façade facing out	Internally mounted on each door pillar facing in ¹
Mounting height	Typically 10 -17 feet	Typically 5-6 feet
Other mounting options	Inside drive suspended from ceiling, 5-6 feet in	Pole mounting options, outside the service drive
Customer complexity for self install	Medium difficulty for installation	Easy installation
Scissor lift required	Yes	No (unless ceiling mounted) ¹

¹For drives without singular doors, cameras could be mounted on ceiling facing in. However, vehicle would need to be approx. 12 feet into drive for plate photo taking

RFID Vs. LPR Edition -- Key Differences

Functionality / Pros & Cons

Comparison Point	RFID Edition	LPR Edition
Forward read range	Typically 15 feet for a standard and 40 feet for High Gain antenna	LPR will typically use rear plate of vehicle unless state uses front plate
Expected Customer Recognition Index (CRI)	Low% on day 1; rises over time as tags are added	85%+ on day 1 and after; may vary state by state
Supports loaner identification on return	Yes, via RFID tag stored in TSD and RFID on loaner	Yes, via actual license plate stored in TSD
Synchronization methods	Handheld, mobile app, desktop application	None required
Speed of identification	Typically under 3 seconds	Typically under 5 seconds
Lane stacking during morning rush	Will read 1-2 cars out, based on mounting local	Will only ID after vehicle is at least 8 feet in drive
Tracks inventory cars going in / out of shop, parking garages, and/or off site lots	Yes; although power and data are required at each choke point being tracked	No; can only track service & loaner vehicles in drive & car wash--Recommend Bloodhound™ for other

RFID Vs. LPR Edition -- Key Differences

Functionality / Support

Comparison Point	RFID Edition	LPR Edition
Responsible parties for association	PDI for new/used cars; greeters / valets for UIOs	None needed
Time to associate tag with vehicle VIN	Approx. 20-30 seconds per vehicle	No process necessary – LPR auto-converts to VIN
Retraining needs for association	Any time there is a change in lane or PDI staff	None needed
Total MDL trips required to install / go live	Two (2 days for Site Survey + 5 day “Go-Live”)	One (3 day “Go-Live”)
Requires RSM computer on site to run system	Yes	Yes
Potential issues	Perceived (but invalid) privacy issues with RFID tag; tag aesthetics; tag size on smaller mirrors; perfect color matching	Potential missed plate reads or incorrect conversion; time to register at DMV (could be a couple of months)

SDC™ LPR Edition:

- ▶ License Plate Recognition Technology



Vehicle Image



License Plate Image

Plate Read # 1
CCW2973

Scan No	Plate 1	Date	Time	Alerted	A
1000	AFK1712	10/08/2016	03:53:37 PM		
999	PLG5337	10/08/2016	03:50:24 PM		
998	PYT2079	10/08/2016	03:50:05 PM		
997	BDS9737	10/08/2016	03:49:03 PM		
996	PSP7355	10/08/2016	02:56:05 PM		
995	CBE2400	10/08/2016	02:42:59 PM		
994	GLT7036	10/08/2016	02:36:59 PM		
993	RDH4567	10/08/2016	02:14:18 PM		
992	KXK190	10/08/2016	02:08:38 PM		
991	FZK4954	10/08/2016	01:53:25 PM		
990	CCW2973	10/08/2016	01:52:27 PM		
989	CBH4659	10/08/2016	01:46:41 PM		
988	WY755	10/08/2016	01:46:26 PM		
987	WY755	10/08/2016	01:39:59 PM		
986	CDP5838	10/08/2016	01:38:54 PM		
985	AUW0154	10/08/2016	01:35:20 PM		
984	PFJ3701	10/08/2016	01:34:48 PM		
983	QAU6006	10/08/2016	01:31:58 PM		
982	CEH7862	10/08/2016	01:28:23 PM		
981	PHH45K	10/08/2016	01:25:36 PM		
980	SAB7120	10/08/2016	01:26:06 PM		
979	BND2575	10/08/2016	01:03:17 PM		
978	PVE3596	10/08/2016	12:57:37 PM		
977	CPC7679	10/08/2016	12:57:25 PM		
976	PLR9397	10/08/2016	12:57:07 PM		
975	CDT5762	10/08/2016	12:51:47 PM		
974	BW999ME	10/08/2016	12:32:18 PM		
973	BSW0904	10/08/2016	12:31:16 PM		
972	RDF1741	10/08/2016	12:31:09 PM		
971	GLC3Q0	10/08/2016	12:31:06 PM		
970	REM3312	10/08/2016	12:30:53 PM		
969	QAU9007	10/08/2016	12:24:57 PM		
968	BFF7684	10/08/2016	12:17:03 PM		
967	CCS7092	10/08/2016	12:12:10 PM		
966	RZ1510	10/08/2016	12:11:40 PM		



RFID Vs. LPR Edition -- Key Differences

Final High-Level Comparison

Comparison Point	RFID Edition	LPR Edition
Least expensive 1 time deployment fee		✓
Least expensive overall monthly subscription	✓	
Lowest overall cost of ownership		✓
Lowest overall support for store staff & MDL		✓
Lowest cost for dealer to prep area for install (power & data)		✓
Speediest method to process guest identity	✓	
Best solution for tracking retail inventory	✓	

RFID Vs. LPR Edition -- Key Differences

Final High-Level Comparison - Cont'd

Comparison Point	RFID Edition	LPR Edition
Fastest option to an 80+% CRI %		✓
Works with loaner units without a license plate	✓	
Works best with short, shallow service drives	✓	
Requires the least amount of initial and ongoing training		✓
Requires least amount of MDL on-site tune ups		✓
Easiest solution for dealership self install		✓
Allows for other “zonal” choke points to be created for Service & Inventory Tracking	✓	

Service Drive Configurations

Better Suited for RFID Edition

Better Suited for LPR Edition



RFID to LPR Edition

Conversion Options for Existing RFID Clients



Frequently Asked Questions



THE BIG QUESTION

- ▶ ***Why hasn't MDL offered an LPR version of Service Drive Concierge (SDC) in the past?***
 - ▶ LPR camera technology has evolved greatly over the past few years allowing for improved plate reading translation
 - ▶ The older LPR cameras did not work very well in different operating environments (i.e. angles, wet, dry, light, dark)
 - ▶ Cameras were much more expensive, bulky, and complex to install for most dealer configurations
 - ▶ Technology providers considering the use of LPR cameras looked at the DMS to be the sole source from which to obtain license plate data (this data is typically inconsistent or unavailable)
 - ▶ Single source access to Department of Motor Vehicle (DMV) records has not been available until very recently

RFID to LPR Edition

Conversion Options for Existing RFID Clients

Conversion -- Frequently Asked Questions (FAQs)

- ▶ ***Can I run both the RFID system and LPR system at the same time?***
 - ▶ Yes you can. If you run both systems, then you will need to have a second computer on site.

- ▶ ***Can I get any money back from any unused RFID tags?***
 - ▶ Unfortunately not. All RFID tag sales are final

- ▶ ***What if I have a service drive with no independent door entries?***
 - ▶ LPR may be installed on the ceiling but will read the rear plate no less than 12 feet upon entry into the service drive
 - ▶ For ceiling mount options, an additional fee will be charged for the rental of a scissor lift if dealer does not have one on site

- ▶ ***Why is there a per camera monthly charge?***
 - ▶ Because MDL licenses the Plate-to-VIN conversion service from our external partner with DMV database access. This is a pass-through expense with no markup

RFID to LPR Edition

Conversion Options for Existing RFID Clients

Conversion -- Frequently Asked Questions (FAQs) Cont'd

- ▶ ***Is there any difference in SDC™ functionality between RFID and LPR?***
 - ▶ SDC RFID is faster for the recognition of customers and can read the vehicle as it approaches the service drive. LPR will read the car only upon entry (at least 8 feet into the service drive) – If the dealer is in a State with front plates, or installs cameras at an exterior point, the vehicle can be identified on outside

- ▶ ***Can LPR read a front license plate if our state mandates a front plate?***
 - ▶ Yes. In this case, the camera should be facing outside of the drive towards the incoming service traffic
 - ▶ Note that states with front plate requirements may not enforce the front plate placement which would result in a lower recognition rate

- ▶ ***Do I need to replace my flat screens or any other screens installed with the RFID system?***
 - ▶ No--These will work fine as is, although screen 'pop's may be slightly slower with LPR in certain conditions

RFID to LPR Edition

Conversion Options for Existing RFID Clients

Conversion -- Frequently Asked Questions (FAQs) Cont'd

- ▶ ***Does LPR recognize every single license plate?***
 - ▶ No--There may be times when a camera does not properly read the plate, or the VIN is not found within the DMV database, and the quest will not be recognized

- ▶ ***Why do you provide 2 tune-ups instead of 4 tune-ups per year with LPR?***
 - ▶ After MDL's evaluation, it was determined that the majority of time spent during tune-ups was being devoted to improving RFID tagging operations. Since this process / labor will no longer be required, MDL can reduce the number of tune-ups to two (2) annually without any reduction in service performance

- ▶ ***What if our network does not have Power over Ethernet (POE) capabilities?***
 - ▶ Your IT manager can install a POE injector (normally < \$50) which will allow the cameras to work on POE

RFID to LPR Edition

Conversion Options for Existing RFID Clients

Conversion -- Frequently Asked Questions (FAQs) Cont'd

- ▶ ***What if we keep using RFID in some stores and begin using LPR in other stores? Will the system still recognize a customer as it goes from one sister store to another?***
 - ▶ Stores that use RFID technology ALONE will only be able to identify RFID Tagged vehicles
 - ▶ Stores that use LPR technology will recognize and process the arrival from all sister stores, as long as the plate read has properly converted the plate to the customer's VIN

- ▶ ***What is required for my loaners to work with LPR?***
 - ▶ If you are using TSD or MDL's loaner system, then you must enter the vehicles' license plate info into the loaner system
 - ▶ If loaners do not have actual license plates, then the solution will not identify returning guests in loaner vehicles

RFID to LPR Edition

Conversion Options for Existing RFID Clients

Conversion -- Frequently Asked Questions (FAQs) Cont'd

- ▶ ***If we are currently an MDL client using RFID based Zonal Tracking functionality, can we convert to LPR?***
 - ▶ There are two options which can be selected:
 - ▶ Option 1 – Use RFID for existing zonal chokepoints; use LPR for service drive and car wash
 - ▶ Please note that this still requires the dealer to be diligent in the process of RFID tagging
 - ▶ Option 2 – Use LPR for service drive and car wash; use new MDL Bluetooth-based technology “Bloodhound Service” for the tracking of service vehicles throughout the service process
 - ▶ MDL does not recommend using LPR for zonal chokepoints due to the required monthly per camera licensing fees

Still Have Questions? We've Got Answers...

To help you in understanding what may be your best individual option, you can schedule a 30 minute review and Q&A session with us. To schedule this call, please go to www.mydealerlot.com and on the lower right, click on **SCHEDULE A DEMO**. Select the option for “**SDC Potential Conversion Review**”. Select any open time slot that fits your schedule.

