



TECH TALK

Volume 201, October, 2013

Triton Truck Concept

In This Issue

- Vehicle Technical Info..... page 1
- Techline Information..... page 3
- MEDIC Information..... page 3
- CVIR Success..... page 4
- Training News..... page 5
- Transmission, Transfer and..... page 6
Differential Lubricants Chart
- Vehicle Emissions Requirements.. page 7
- Bulletin Review..... page 8

Vehicle Technical Info

NOTE: The ✓ mark is used as a reminder, to indicate an article that has been repeated from a previous issue of Tech Talk.

GROUP 00 – General

✓ VEHICLE RECEIVING INSPECTION - ROAD SALT CONTAMINATION — All models.

Winter weather brings challenges to the new vehicle receiving and inspection process. Snow and ice can coat vehicles, making inspection difficult. Road salt can also coat vehicle surfaces and hide dents, paint chips and other damages. A thorough inspection should be completed.

Road salt that is deposited on vehicle surfaces during transportation must be removed immediately, especially from the underhood and under body areas. Immediately rinsing the affected areas with clear water helps flush salt from the surface, reducing the possibility of severe corrosion. It also allows proper vehicle inspection and reporting of any transportation damage hidden by the salt coating. Any hidden damage must be found, and the delivering carrier notified, within 48 hours of vehicle receipt in order to protect your ability to file a transportation claim.

If the salt coating is not removed immediately, significant surface corrosion may develop on

unpainted underhood and under body components. These surfaces may normally exhibit light surface corrosion, but if the salt coating is not removed immediately, significant surface corrosion may appear. The under body parts normally develop a dark colored surface coating after some usage, but if salt is not removed from the under body, a rusty, orange-colored surface corrosion can develop. Under hood alloy components may also be affected and develop a white, crusty coating. Rinsing of vehicles at delivery reduces the chance of corrosion getting to advanced stages, and is considered to be a part of the normal inspection and receiving process.

The removal of corrosion caused by accumulated and/or un-rinsed road salt or salt coatings because the vehicle was not properly rinsed is not a warrantable expense.

NEW MULTI GEAR OIL “ECO” 75W-80 — 2014 Mirage. A new gear oil (p/n MZ320355) is now available from your facing PDC in quart bottles. It was developed specifically for use in Mitsubishi applications recommending 75W-80 grade gear oil for enhanced fuel economy. The quantity unit pack (QUP) is a 12 quart case.

This oil is **required** for use in the 2014 Mirage with 5 speed manual transmission.

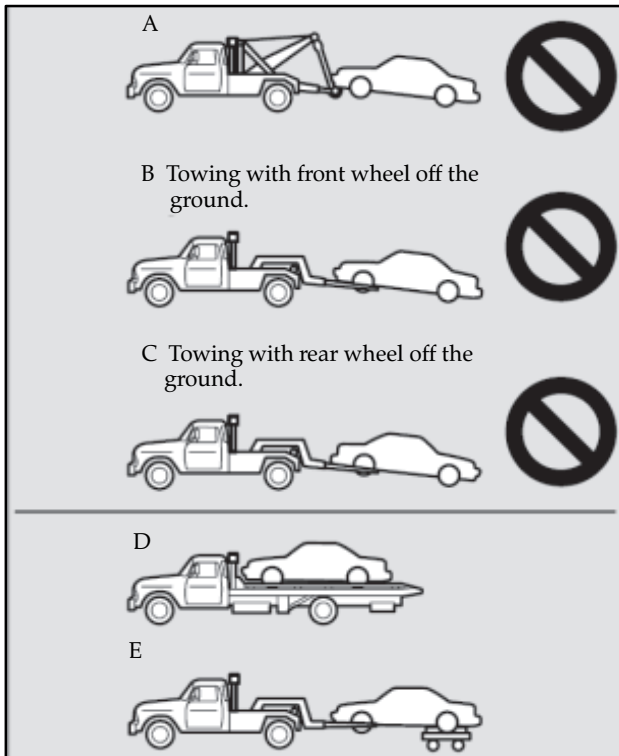
ID CODES REGISTRATION PROCEDURE MANUALS — All models where VIN writing is required.

MMNA has posted ID Codes Registration Procedure Manuals for affected models on the MDL (service > service tech resources > service related items). The procedures may be required when replacing a control unit where the VIN is recorded, a TPMS sensor is replaced, and/or a key or KOS transmitter is added or replaced (immobilizer function).

SPECIAL REMINDER FOR TOWING AWD MODELS — 2009-14 Lancer (Ralliart & SE), 2010-11 Lancer Sportback (Ralliart), 2003-14 Lancer Evolution, 2003-14 Outlander, 2011-14 Outlander Sport, 2004-11 Endeavor, and several retired models.

Some tow truck drivers may not be aware that MMNA has sold all wheel drive models over the past 24 years. If AWD vehicles

are towed incorrectly (single axle tow, A, B, C below) the driveline will be damaged. Damage from improper towing is not covered by warranty.



AWD models must be transported on a “flatbed” tow truck (D, above) or, at minimum, by using a “tow-dolly” on the non-lifted axle of the vehicle (E, above).

⚠ CAUTION

- This vehicle must not be towed by a tow truck using sling lift type equipment (Type A) as illustrated. Using a sling lift will damage the bumper and front end.
- Do not tow all-wheel drive vehicles with the front or rear wheels on the ground (Type B or Type C) as illustrated. This could result in the driving system damage or vehicle may jump at the carriage. If you tow all-wheel drive vehicles, use Type D or Type E equipment.

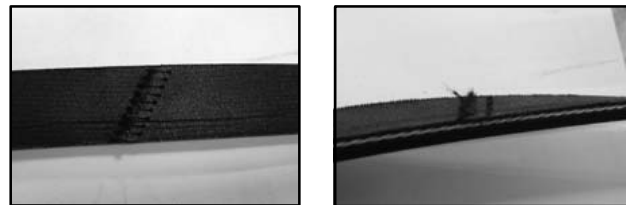
If you suspect that a drive train issue may be due to improper towing, consult with your **DPSM** before beginning any repairs.
 Damage to drivetrain components caused by improper towing is not covered under warranty.

Additional questions about proper towing of AWD vehicles should be directed to Techline.



GROUP 11 – Engine

FRAYED STITCHING ON THE OUTER LAYER OF THE ACCESSORY DRIVE BELT — 2013-14 Outlander Sport. MMNA has received comments about “frayed” stitching on the outer layer of the accessory drive belt. This stitching is not structural. It is used in belt production to hold the outer layer of the belt together until it is fused to the rest of the belt. Frayed stitching has no affect on belt durability once production is complete.



Do not replace the accessory drive belt because of frayed stitching.



GROUP 13 – Fuel

DTC P0463 RECORDED IN PCM, FUEL GAUGE DOES NOT REGISTER — 2011-14 Outlander Sport, 2007-14 Outlander. Reports from the field indicate DTC P0463 - Fuel Level Sensor Circuit High Input may be set when the level of fuel in the tank is extremely low (no bars showing on the MID fuel gauge). Typically, this condition has been reported at PDI. If fuel is added and the DTC status changes from active to stored, erase the DTC. If DTC P0463 can be cleared after fuel is added to the vehicle, the low fuel condition was the likely cause of DTC P0463 being set. Further diagnosis is not required.



GROUP 35 – Brakes

STOP LIGHTS DO NOT LIGHT WHEN BRAKE PEDAL IS DEPRESSED — 2010-later Outlander, 2011-later Outlander Sport. If you see a vehicle where the stop lights are not working, try this simple diagnosis first.

Disconnect the high mount stop lamp, then recheck the main stop lamps. If they now light, the high mount stop lamp may be faulty. If they still don't light, proceed with diagnosis as outlined in the service manual.


Techline has received calls where this diagnosis has led to resolving the concern.

═══ ” ═══

GROUP 54 – Chassis Electrical

BLUETOOTH SPEAKER SELECTION - DISPLAY RADIO — 2014 models with Display Radio (non-navi). If a customer reports they found the settings for alternate telephone speaker selections not highlighted (inactive) in the Settings menu (Menu > Next > Setting > System Settings > Beep/Tel Settings), this is normal for the North American market. You can only adjust volume. You cannot change speaker settings.



<p style="font-size: 2em; font-weight: bold; margin: 0;">TECHLINE</p> <p style="font-size: 1.2em; font-weight: bold; margin: 0;">(800) 446-6064</p>	<div style="text-align: center;">  </div> <p style="font-weight: bold; margin: 0;">HOURS: Monday — Friday 6:30 – 11:30 am & 12:30 – 3:30 pm All times are Pacific Time</p> <p style="font-size: 0.9em; margin: 0;">NOTE: Techline is closed every THURSDAY from 9:30 – 10:30 A.M (Pacific) for a staff meeting.</p>
---	--

Techline Holiday Schedule:

Closed Thanksgiving Day (November 28). Reduced staffing Friday, November 29.

Christmas Holidays: Closed December 24, 25, January 1. Reduced staffing December 26, 27 30, 31.

<p style="font-size: 1.5em; font-weight: bold; margin: 0;">MEDIC Information</p> <p style="font-weight: bold; margin: 0;">MEDIC Hotline (800) 846-7575</p>	<p>Call the MEDIC Hotline for <u>ALL MEDIC & Scan Tool hardware or software issues</u>. Call TECHLINE for vehicle technical issues.</p> <p>As of 10/1/13: Total Hits - 6148 Reflash Database - N13021</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">MEDIC 3 Version - 3.2</td> <td style="width: 50%;">MEDIC 3 Update - 222</td> </tr> <tr> <td>MUT-III Version - 28.0</td> <td>Raider Scan Tool Version - 6.0</td> </tr> </table>	MEDIC 3 Version - 3.2	MEDIC 3 Update - 222	MUT-III Version - 28.0	Raider Scan Tool Version - 6.0
MEDIC 3 Version - 3.2	MEDIC 3 Update - 222				
MUT-III Version - 28.0	Raider Scan Tool Version - 6.0				

CVIR Success

Don Herring North Mitsubishi, Plano, TX

A dealer who increased his service business using MEDIC CVIR.



Standing (L-R): Antony "Tony" Sdao Service Director, Giovanni Crinella - Master Elite Technician, Roger Kell - Master Elite Technician, Bridget Aley Diamond Certified Advisor, Larry Ashe Diamond Certified Advisor, Ken Harris - Master Technician, Eugene Brewster- Level 1 Maintenance Specialist, JT Turner - Diamond Certified Advisor, Jose Rodriguez - Mitsubishi Specialist and Level 2 Maintenance Technician. **Kneeling (L-R):** John Fisk - Service Drive Porter, Jay Vandiver - Master Elite Technician, Blas Morales - Facilities & Porter Mgr.

Tony Sdao, Service Manager at Don Herring North Mitsubishi in Plano, TX, wasn't a fan of the Computerized Vehicle Inspection Report (CVIR) at first. However, after a year of using it on a regular basis, that has changed. The key for him was figuring out the best way to implement it, both operationally and financially. To make the CVIR effective for his store, Sdao changed his procedure from providing an inspection report when the RO is closed, paid for, and the customer is ready to leave, to getting the information into the customer's hands as early in the repair process as possible. It's a cultural change that has resulted in 20-25% of his customers agreeing to perform some or all of the recommended repairs the same day, and another 20% returning for repairs in the near future. Sdao says CVIR has increased his average RO labor by about 0.2 hours, and average RO parts by about \$13.50. That's pretty impressive when you realize they complete a CVIR for about 80% of their ROs.

Expectedly, one of the biggest hurdles was getting the technical staff to buy into it. Completing a CVIR does take time. However, once familiar with the process, it takes only about 15 minutes to inspect the car and enter the data. The CVIR is completed and the customer notified early in the repair process, allowing the customer to make an informed decision about having additional repairs performed, without the inconvenience of having to come back at a later date. Sdao says that because CVIR was created by MMNA, it works as an inspection template specific to Mitsubishi products, leading to a more complete and accurate inspection.

When a CVIR is created, some customers prefer it e-mailed to them. They can take their time going over it and decide what's best for them. Others want to discuss it face-to-face. Because every report is printed for the customer, Don Herring North invested in a color laser printer. According to Sdao, "Printing the report in color makes an impact and provides a professionalism I am proud of." He realizes that color toner cartridges are more expensive, but the impact makes them worth it.

Sdao refers to the CVIR as his "silent salesman." The report shows not only the repairs needed, it explains the findings in a way most customers can understand. Instead of the advisor spending time sorting through the RO for technician comments and recommendations, then explaining it to the customer, the adviser gives them either a printed copy, or sends an email with it attached, and lets the report do the talking. This frees him up to complete other business and assist other customers.

Don Herring North is an example of how this valuable tool can help grow your business, by increasing your dollars per repair order. It also provides your customers a tool they can use in keeping their vehicle safe and reliable. Its impact may even enhance customer retention. Just ask Tony Sdao of Don Herring North.

<h1 style="margin: 0;">Training News</h1>	<h2 style="margin: 0;">Technical Training Schedule October - November, 2013</h2>
---	--

Mobile Training does not appear on these calendars. Contact your District Parts & Service Manager for information about mobile training in your area.

East Zone - N.J. Tech Training Center

East Zone - Atlanta Tech Training Center

October					
M	T	W	Th	F	
	1	2	3	4	
	141	ASCF	TC-SST		
7	MFIT2				
14	MED2	STV3	141	ASCF	
21					
28	141	ASCF	TC-SST		

November					
M	T	W	Th	F	
28	29	30	31	1	
	141	ASCF	TC-SST		
4	CVTT				
			141	ASCF	
11	141				
18	AED				
25	141	ASCF	H H		

October					
M	T	W	Th	F	
	1	2	3	4	
MFIT2					
7	AED				
14	141	ASCF	TC-SST		
21	CVTT				
			ABS		
28	ES2				
			SP3		

November					
M	T	W	Th	F	
28	29	30	31	1	
ES2					
			SP3		
4	141				
		ASCF	ES3		
11					
18	EN1				
25	141	ASCF	H H		

West Zone-Dallas Tech Training Center

California Technical Training Center

October					
M	T	W	Th	F	
	1	2	3	4	
	ABS		SP3	TC-SST	
			141	ASCF	
7	141				
		ASCF	TC-SST		
14	MAC				
			MEVTT		
21	141				
		ASCF	TC-SST		
	MTT				
			SP3		
28	AED				
			AAC		

November					
M	T	W	Th	F	
28	29	30	31	1	
AED					
			AAC		
4	141				
		ASCF	TC-SST		
11	STV3				
		MED2	ES2		
18	MFI				
25	ES3				
			H H		

October					
M	T	W	Th	F	
	1	2	3	4	
7	MTT				
			AAC		
14					
21					
28					

November					
M	T	W	Th	F	
28	29	30	31	1	
4					
11	ES3				
			MEVTT		
18					
25					
			H H		

Automatic Transaxles			Manual Transaxles		
Days	Code	Prerequisites	Days	Code	Prerequisites
3	AT2T	ATFT1 or ATFWE or ATFB	3	MTT	No Prerequisites
1	AT3	AT2T	2	TC-SST	AESP, ES1, ES2, STV3, MED2, MED3, ATFWE, MTT
2	CVTT	ATFT1 or ATFWE or ATFB			
Brakes			Vehicle Specific		
2	ABS2	ES1	1	SP3	No Prerequisites
Electrical Systems			1	141	ES1, MED2, MED3, STV3
3	ES2	ES1	2	MEVTT	AESP, ES1, ES2, STV3, MED2, MED3, 120
2	ES3	ES1	Vehicle Diagnostics		
Engine Performance			-	AESP	No Prerequisites
3	AED	ES1, STV3, MFIT2	1	ASF	ES1, MED2, MED3, STV3
3	EN1	No Prerequisites	1	MED2	No Prerequisites
4	MFIT2	ES1, STV3	1	STV3	No Prerequisites
Heating & A/C Systems					
2	MACT	No Prerequisites			
1	AACT1	ES1			

NEWS:

- 2014 Mirage New Model Features:** This self study course, developed for all Fixed Operations staff, is now available online. It has been posted on the Mitsubishi Academy website (www.mitsubishiacademy.com) and the MDL ([MDL > Tech Training > Training Module Resource Library > Subject Area > 142](#)). After completing the study guide, participants are required to pass an online exam posted on the Mitsubishi Academy to receive credit for successful completion of the course.


Mitsubishi Motors
Transmission, Transfer Case and Differential Lubricants

Part #	Part Name	QUP	Application
C0002610	Dia Queen SSTF-1	4 liter	Special fluid for use in Twin Clutch-Sportronic Shift Transmissions only.
MB664682	Mitsubishi Limited Slip Differential Additive	100ml	Coefficient modifier for differentials with mechanical steel plate type of clutches (not for VCU limited slip differentials)
ME581050	Friction Modifier	7.5 ml	Transmission friction coefficient modifier for late '80s/early 90's manual transmission (improved shift characteristics).
MZ313771	Dia Queen CVTF-J2	1 qt	ATF for 2007-10 Outlander 6 speed automatic transmissions
MZ313376	Multi Gear Oil, 75W-85 EVO 6 spd.	1 gal	GL-4 Transmission fluid only for the Evolution 6 speed manual transaxle
MZ320185	Dia Queen CVTF-J4	1 qt	ATF for 2008-10 Lancer & Outlander CVT transmissions.
MZ320195	Dia Queen New Multi Gear Oil: 75W-80	5 gal	GL-3 Transmission fluid. Normal fill for 40/50 series transaxles on LEFT (driver) side of engine compartment except as noted below.
MZ320197	Diamond Gear Lube, 75w-85w	1 qt	GL-4 Transmission fluid. Normal fill for RWD manual transmissions, and 20/30 series manual transaxles on the RIGHT (passenger) side of engine compartment, shiftable transfer cases on Monteros and Montero Sports, 20/30 series AWD transfer cases on Eclipse, Galant, Expo, and 3000GT VR4 transmission and transfer case.
MZ320200	Diamond ATF SPIII	1 qt	ATF used only as an actuator fluid for the Active Center Differential (ACD) system on 2005-later Lancer Evolution.
MZ320345	LSD Gear Oil SAE 90	1 qt	GL-5 90w Differential oil. Normal fill for differentials. Also for 40/50 series AWD transfer cases on Outlanders, Endeavors, Evolutions, etc.
MZ320350	Genuine Super Hypoid Gear Oil - GL5 (SAE 80)	1 qt	Required for transfer case and rear differential in 2014 Outlander with AWC. Note: Can also be used in place of Hypoid Gear Oil for ZC
MZ320355	Multi Gear Oil ECO 75W-80	1 qt	Required for 2014 Mirage with manual transmissions.
68218057AA	Manual Transmission Fluid, F5MC1	1 qt	Synthetic transmission fluid only for the 1995-1999 420A powered manual transmission Eclipse

VEHICLE EMISSIONS REQUIREMENTS BY STATE FOR 2014 MODEL YEAR

State air quality regulations are subject to change every year. These regulations apply **ONLY to 2014 model year new vehicles**. Contact your local authorities for details on your responsibilities regarding these regulations.

- ✓ **50-STATE EMISSIONS** vehicles may be sold in any state.
- ✓ **CALIFORNIA EMISSIONS** vehicles must be sold in the following states:



With few exceptions, owners will not be allowed to register a Federal Emissions vehicle in these California Emissions states. Heavy fines may result if a Federal Emissions vehicle is sold in any of these states:

California	Maryland	New York	Rhode Island
Connecticut	Massachusetts	Oregon	Vermont
Delaware	New Jersey	Pennsylvania	Washington
Maine			

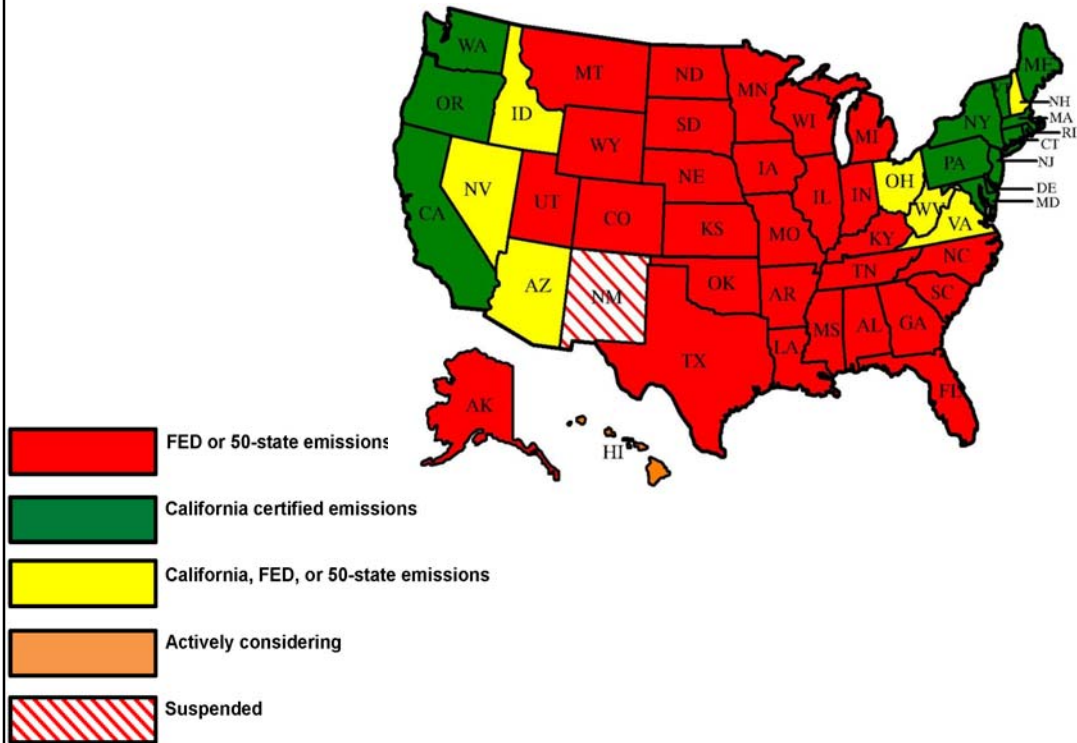
- ✓ **FEDERAL EMISSIONS VEHICLES** may be sold in any state **EXCEPT** the states listed above.
- ✓ In the following states, either **FEDERAL OR CALIFORNIA OR 50-STATE EMISSIONS vehicles** may be sold:

Arizona	New Hampshire	Washington, DC
Idaho	Ohio	West Virginia
Nevada	Virginia	

✓ New Mexico had adopted California Emissions regulations starting on all 2011 MY vehicles, but this legislation has been suspended until January 1, 2016 and will continue to be a federal emissions vehicle state.

✓ In **Canada and Puerto Rico**, either 50-state or Federal Emissions vehicles may be sold.

VEHICLE EMISSIONS REQUIREMENTS BY STATE FOR 2014 MODEL YEAR



Bulletin Review

The following information was recently released:

Number	Title	Vehicles	Subject
TSB-13-00-017	Technical Specifications 2014 Mirage	2014 Mirage	Provides technical specifications for 2014 Mirage
TSB-13-00-018	New Model Service Information and Features	2014 Mirage	Provides new model service information and outlines features available
TSB-13-00-019	Revised Scheduled Maintenance Table - SMR	2014 Mirage	Removes engine specification for tire rotation
TSB-13-00-020	Revised Main Battery Compensation Reset Procedures - SMR	2012-13 i-MiEV	Corrects mis-numbering of sub steps
TSB-13-11-008	4J12 Engine Valve Adjustment Procedure	2014 Outlander	Provides written backup of video available through MDL
TSB-13-11-009	Changes to Drive Belt and Tensioner Procedures - SMR	2012-14 Lancer, Lancer Sportback, 2012 Outlander Sport/RVR	Revises drive belt removal and installation procedures and tension specifications & and tensioner removal procedures
TSB-13-14-001	Updated Radiator Lower Hose R & I Procedure - SMR	2014 Lancer, Lancer Sportback	Revises service manual with coolant hose routing changes
TSB-13-27-001	Rear Wheel Bearing Installation - SMR	2014 Mirage	Adds instructions for proper orientation of rear wheel bearing
TSB-13-34-002	Rear Trailing Arm Bushing Special Tool - SMR	2014 Mirage	Changes description of special tool MB991523
TSB-13-42A-005	Corrected Circuit Diagrams for Central Door Locking w/ KOS & OSS-SMR	2011-13 Outlander Sport/RVR	Revises circuit diagram illustrations for certain electrical connectors
TSB-13-54-003	DTC P1AC3 Troubleshooting - SMR	2012-13 i-MiEV	Revises "Yes"/"No" response instructions for step 3 of the procedure

© Copyright 2013 Mitsubishi Motors North America, Inc.



The information contained in this bulletin is subject to change. For the latest version of this document, go to the Mitsubishi Dealer Link, MEDIC, or the Mitsubishi Service Information website (www.mitsubishitechinfo.com).