



Intelligent Engine Cooling



MONZATECH

INTELLIGENT ENGINE COOLING





Intelligent Engine Cooling

 ***ITALIANO → PAGINE 4 - 36***

 ***ENGLISH → PAGES 37 - 72***



! ATTENZIONE !



Intelligent Engine Cooling

NON ATTIVARE MAI LA POMPA A SECCO!

***LA TENUTA MECCANICA AL SUO INTERNO
DEVE ASSOLUTAMENTE LAVORARE
LUBRIFICATA.***





Intelligent Engine Cooling

FASE 1

RIMOZIONE CARENE



RIMOZIONE CARENA



Intelligent Engine Cooling

- SMONTARE DALLA MOTO LA CARENA SUPERIORE SINISTRA, IL RELATIVO FIANCHETTO E LA RELATIVA VASCA INFERIORE SEGUENDO LE ISTRUZIONI DEL MANUALE OFFICINA DUCATI PANIGALE V4

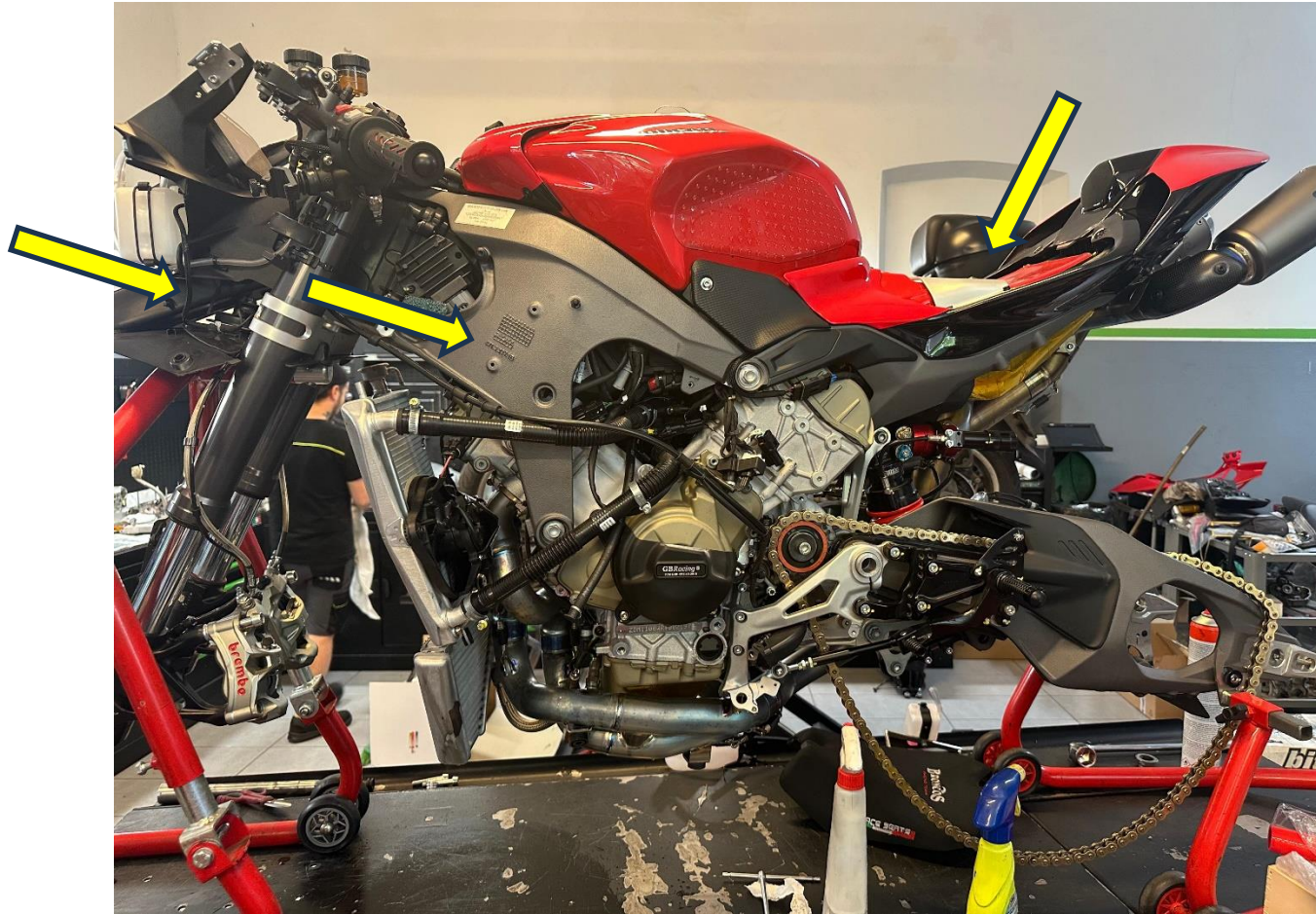


RIMOZIONE CARENA



Intelligent Engine Cooling

○ SMONTARE LE CARENE SEGUENDO LE ISTRUZIONI DEL MANUALE OFFICINA DUCATI PANIGALE V4





Intelligent Engine Cooling

FASE 2

RIMOZIONE CIRCUITO RAFFREDDAMENTO ORIGINALE

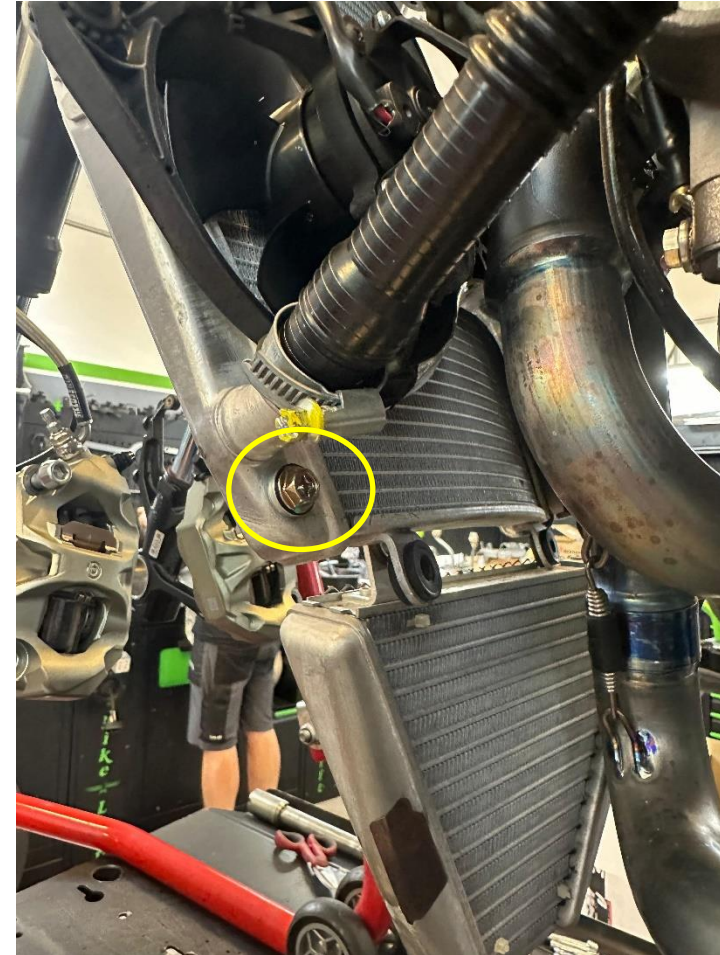


SCARICARE IL CIRCUITO DI RAFFREDDAMENTO



Intelligent Engine Cooling

- RIMUOVERE LA VITE IN BASSO A SINISTRA DEL RADIATORE E SCARICARE LA PRIMA PARTE DI LIQUIDO DI RAFFREDDAMENTO
- RIMUOVERE IL TAPPO RADIATORE PER SVUOTARE COMPLETAMENTE L'IMPIANTO DI RAFFREDDAMENTO

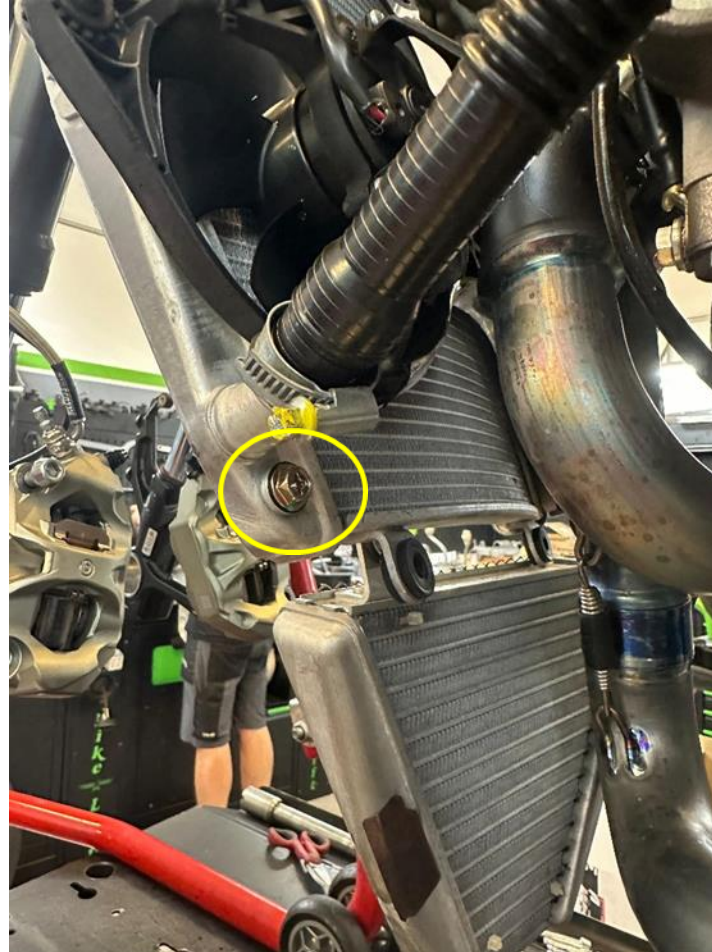


SCARICARE IL CIRCUITO DI RAFFREDDAMENTO



Intelligent Engine Cooling

⦿ RICHIUDERE LA VITE RIMOSSA IN PRECEDENZA



RIMOZIONE TUBI ORIGINALI



Intelligent Engine Cooling

○ RIMUOVERE IL TUBO ORIGINALE INDICATO





Intelligent Engine Cooling

FASE 3

MONTAGGIO CIRCUITO RAFFREDDAMENTO *MONZA TECH*



POSIZIONAMENTO POMPA MONZA TECH



Intelligent Engine Cooling

- ❶ FISSARE I TUBI **MONZA TECH** COME IN FIGURA ASSICURANDOSI DI STRINGERE BENE LE FASCETTE METALLICHE NERE FORNITE NEL KIT
- ❷ FISSARE LA STAFFA DEL COLLARE ALLA MOTO INSERENDO VITE M10



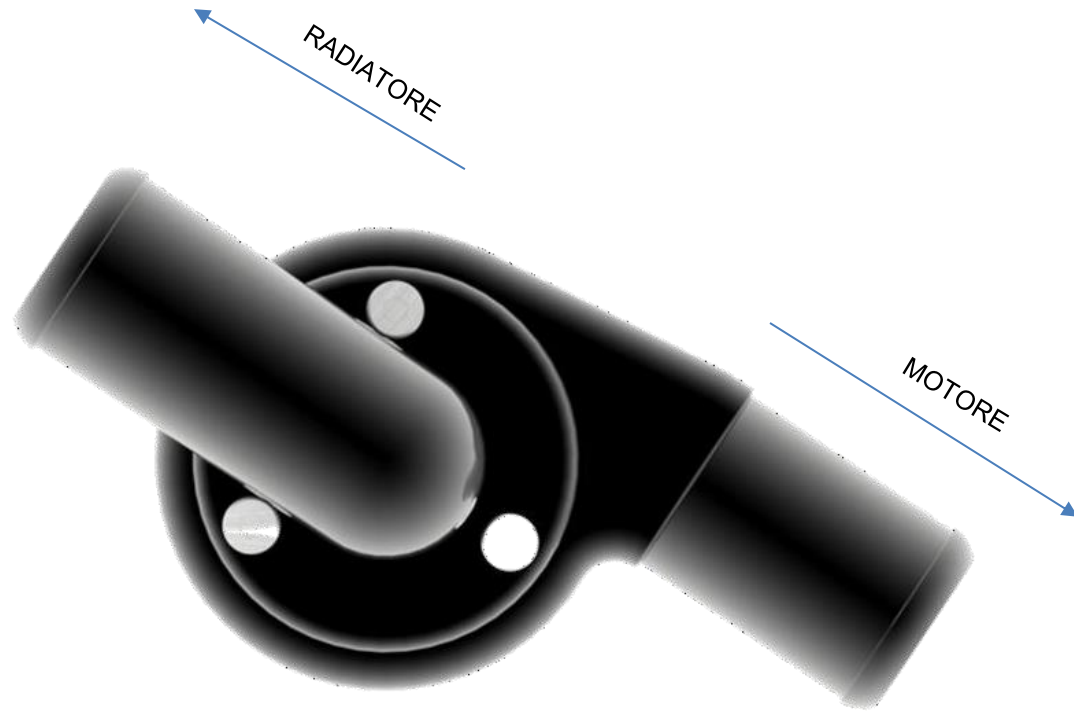


POSIZIONAMENTO POMPA MONZA TECH



Intelligent Engine Cooling

SEGUENDO LA POSIZIONE INDICATA IN FIGURA, FISSARE L'INLET 90° ALLA POMPA CON LE VTC M4X6 FORNITE NEL KIT



RIEMPIMENTO CIRCUITO DI RAFFREDDAMENTO



Intelligent Engine Cooling

- ❶ L'IMPIANTO DI RAFFREDDAMENTO È ORA COMPLETO E CHIUSO
- ❷ PRIMA DI PROCEDERE AL RIEMPIMENTO DEL CIRCUITO, ASSICURARSI DI AVER STRETTO BENE TUTTE LE FASCETTE METALLICHE
- ❸ VERSARE ALL'INTERNO DEL RADIATORE IL LIQUIDO DI RAFFREDDAMENTO PRECEDENTEMENTE SPURGATO
- ❹ CONSIGLIAMO DI SCHIACCIARE 3-4 VOLTE I TUBI IN SILICONE PER PERMETTERE ALL'EVENTUALE ARIA PRESENTE NELL'IMPIANTO DI FUORIUSCIRE

N.B: RIPETERE TALE OPERAZIONE FINO A CHE IL LIVELLO DEL LIQUIDO DI RAFFREDDAMENTO NEL RADIATORE RIMANE COSTANTE ALL'INTERNO DI QUEST'ULTIMO

- ❺ RIEMPIRE COMPLETAMENTE IL RADIATORE



! ATTENZIONE !



Intelligent Engine Cooling

NON ATTIVARE MAI LA POMPA A SECCO!

***LA TENUTA MECCANICA AL SUO INTERNO
DEVE ASSOLUTAMENTE LAVORARE
LUBRIFICATA.***





Intelligent Engine Cooling

FASE 4

MONTAGGIO *ECU MONZA TECH*

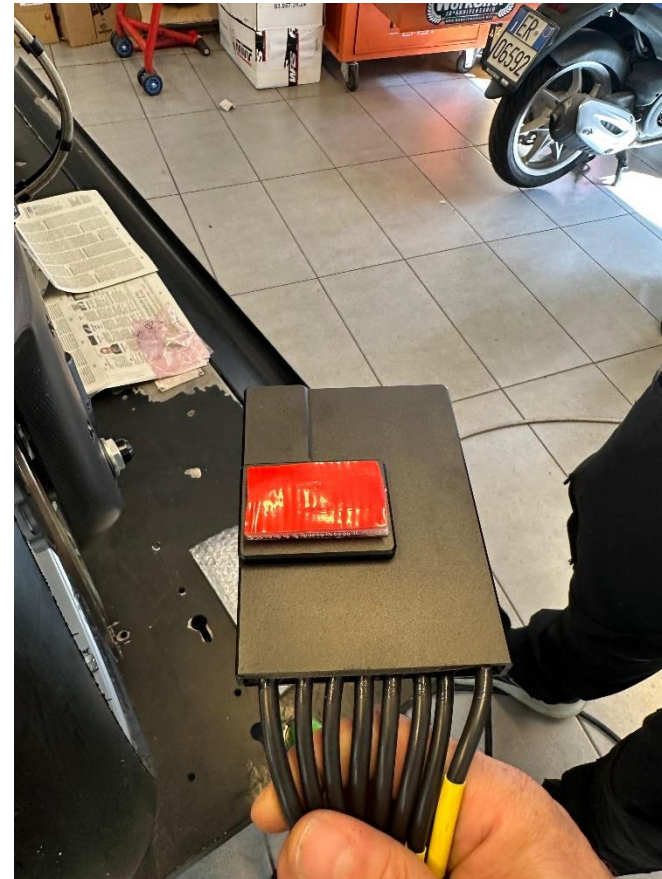


POSIZIONAMENTO CENTRALINA MONZA TECH



Intelligent Engine Cooling

- INCOLLARE LE STRISCE DI VELCRO E IL BIADESIVO SULLA ECU *MONZA TECH*

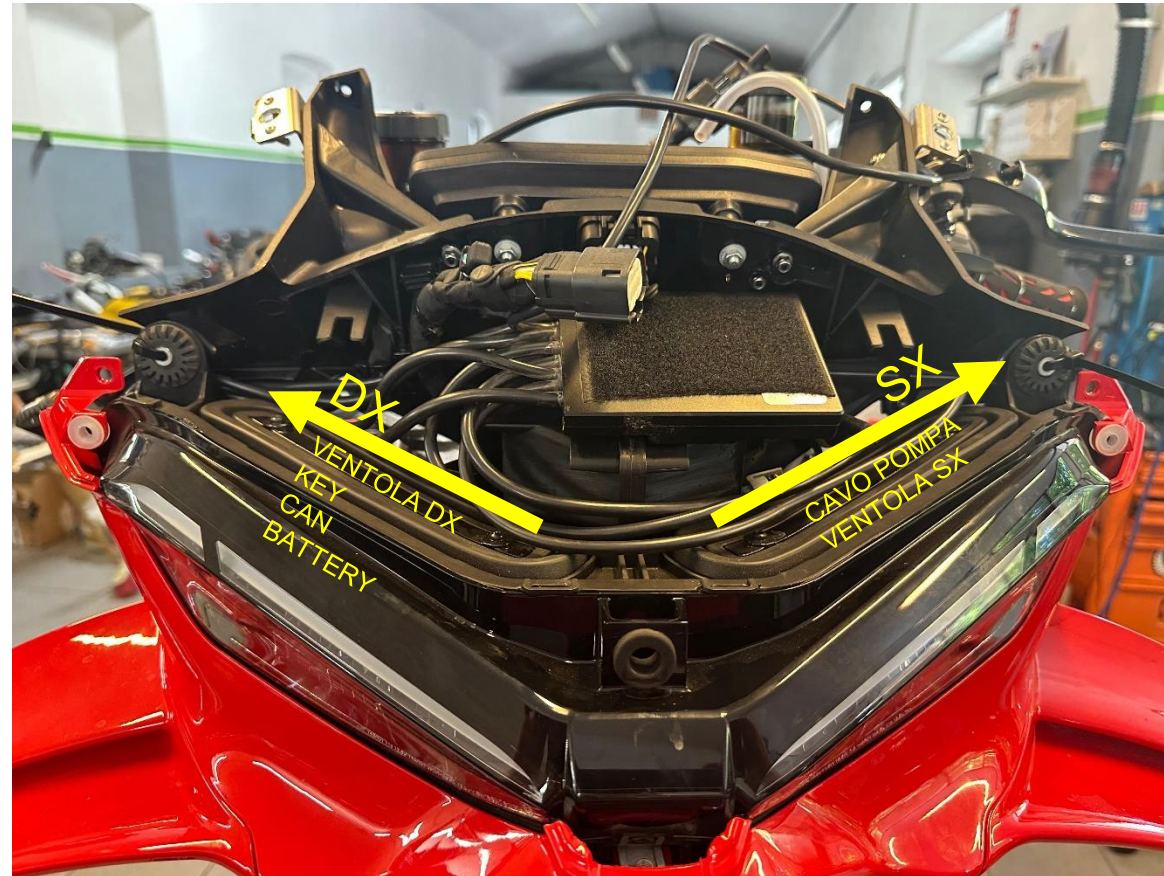


POSIZIONAMENTO CENTRALINA MONZA TECH



Intelligent Engine Cooling

- POSIZIONARE LA ECU NELLO SPAZIO SOPRA I FARI ANTERIORI COME IN FIGURA E PROCEDERE COME SEGUE PER IL PASSAGGIO CAVI

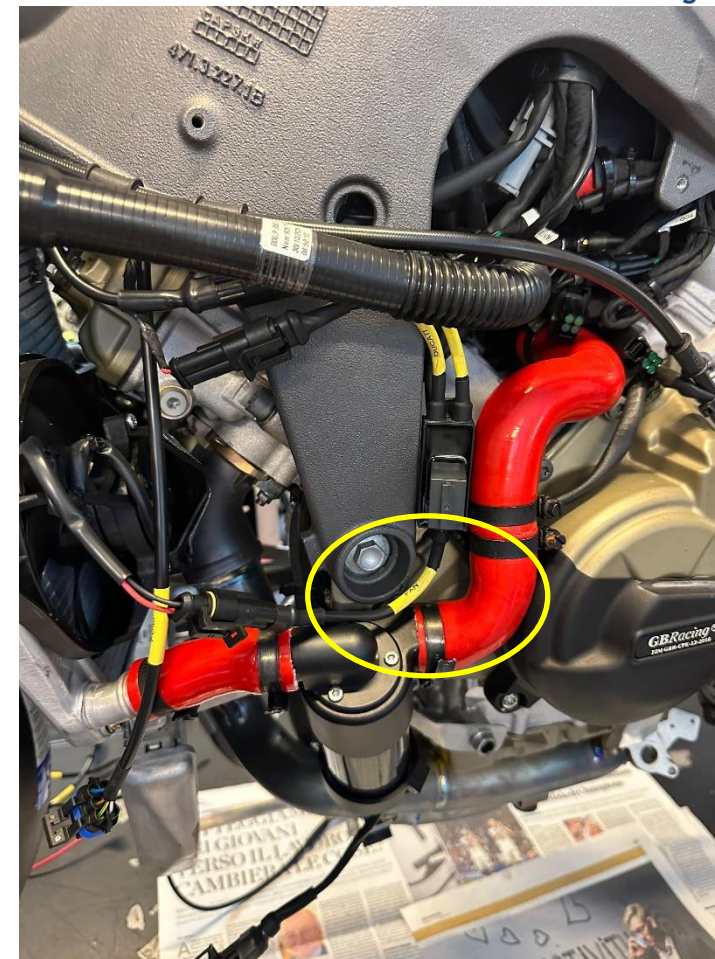
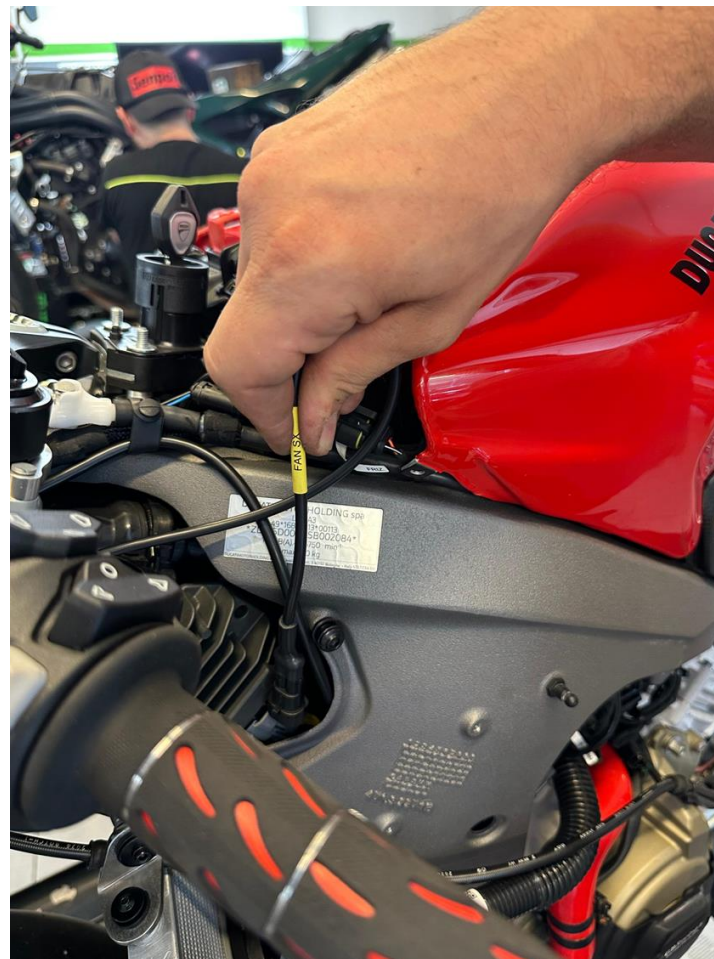
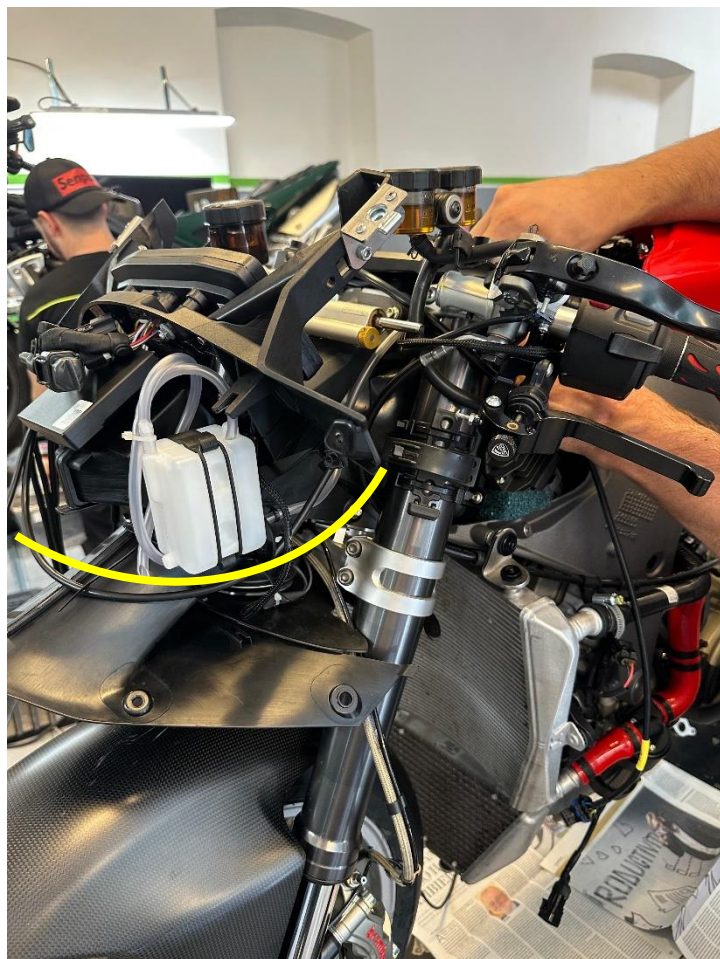


CAVO VENTOLA



Intelligent Engine Cooling

● FAR PASSARE IL CAVO ETICHETTATO **FAN1** COME IN FIGURA (SEGUIRE TELAIO E IN SEGUITO CAVO FRIZIONE COME GUIDA)

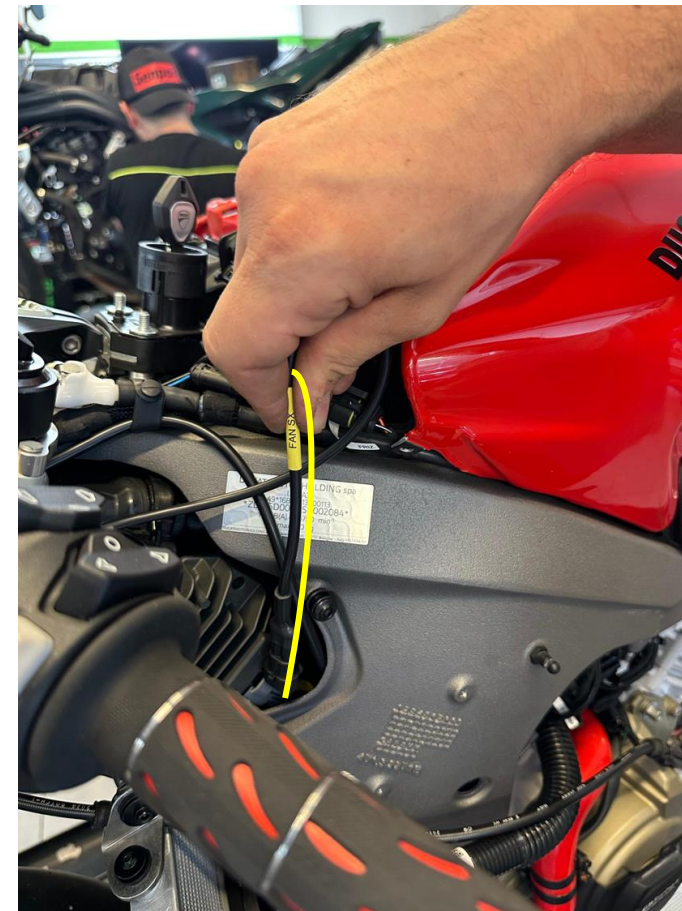
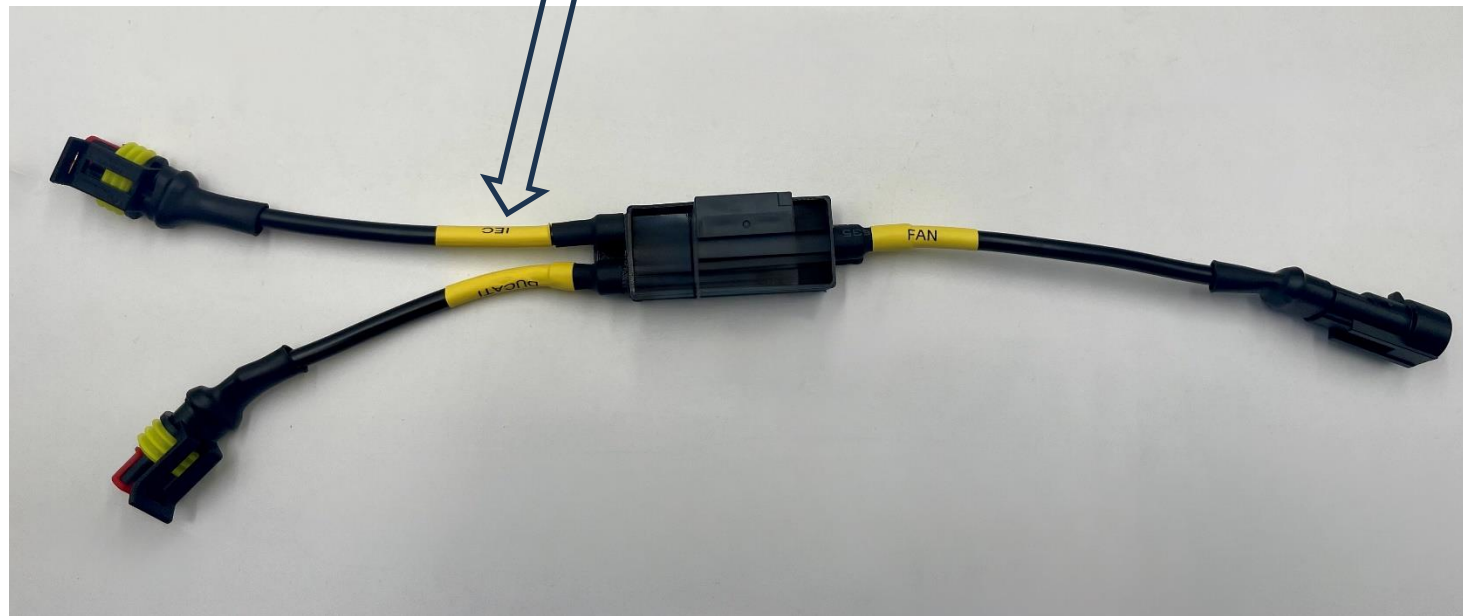


FAN-1 (VENTOLA DI SINISTRA)



Intelligent Engine Cooling

- COLLEGARE IL CAVO ETICHETTATO **IEC** DEL RELÈ AL CAVO ETICHETTATO **FAN SX** USCENTE DALLA CENTRALINA

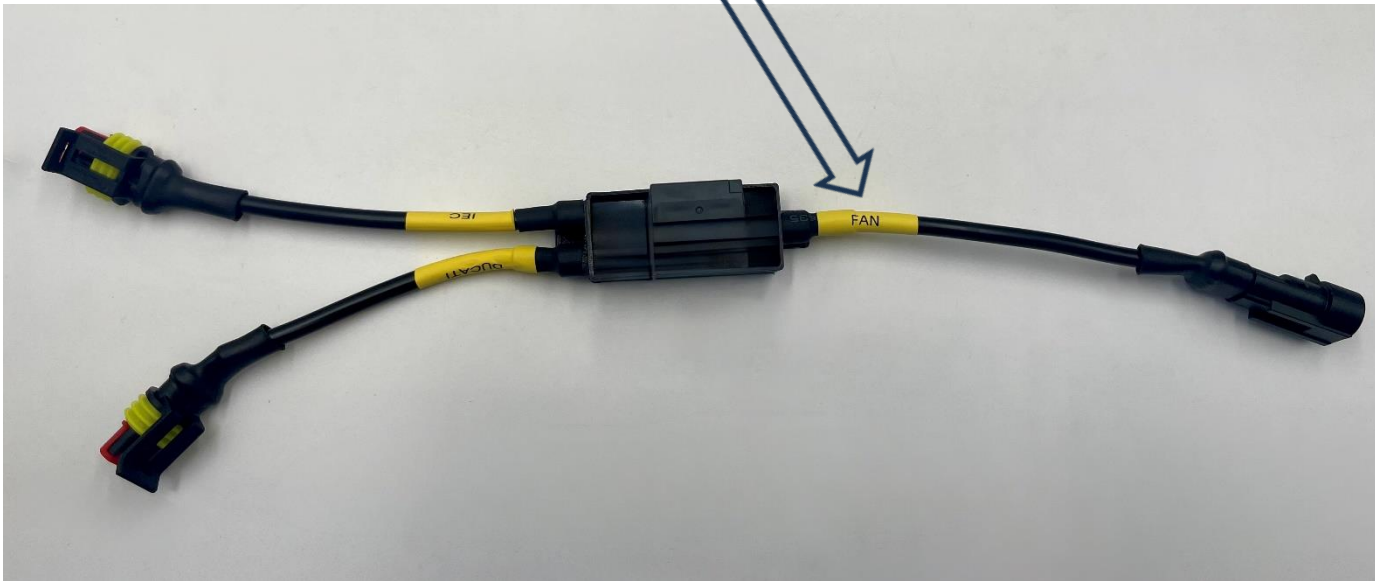


FAN-1 (VENTOLA DI SINISTRA)



Intelligent Engine Cooling

- DISCONNETTERE IL CONNETTORE DELLA VENTOLA SINISTRA.
- COLLEGARE IL CONNETTORE USCENTE DALLA VENTOLA SINISTRA, AL CAVO DEL RELÈ *MONZA TECH* ETICHETTATO **FAN**.

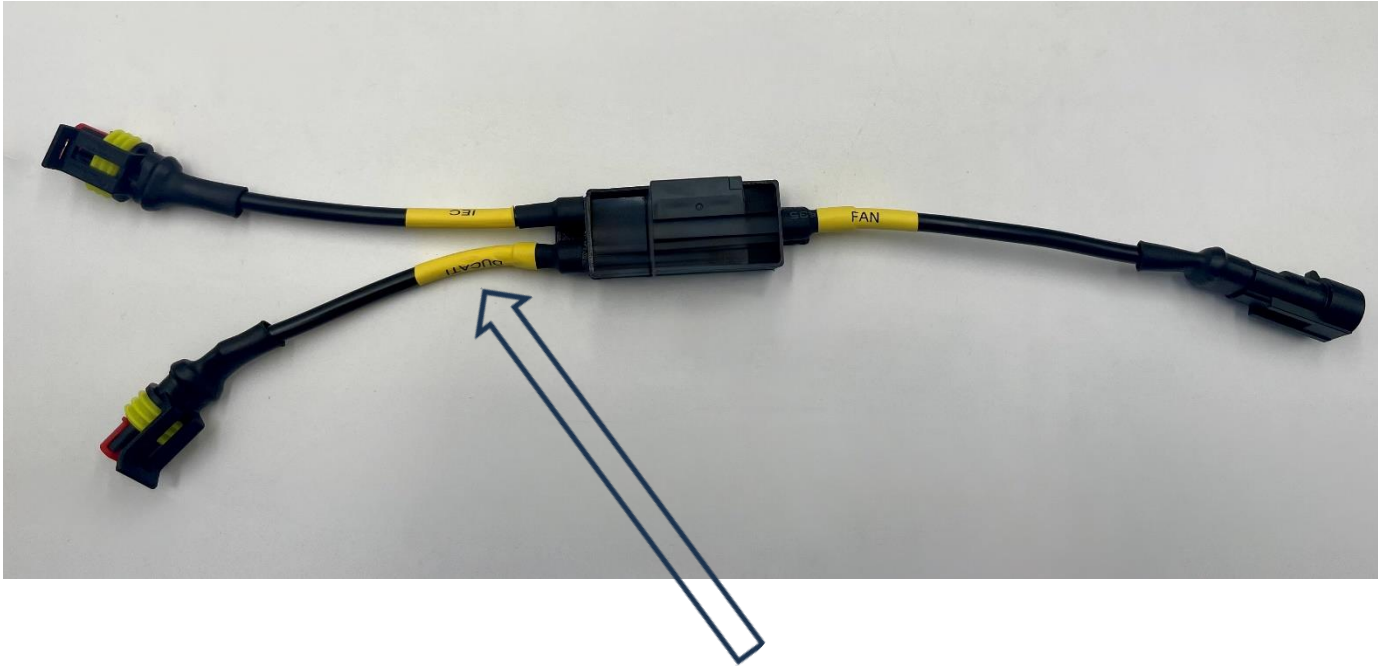


FAN-1 (VENTOLA DI SINISTRA)



Intelligent Engine Cooling

- COLLEGARE IL CAVO ETICHETTATO *DUCATI* DEL RELÈ AL CABLAGGIO ORIGINALE DI ALIMENTAZIONE DELLA VENTOLA



- FISSARE IL RELÈ PIU' LONTANO POSSIBILE DA FONTI DI CALORE DIRETTE.

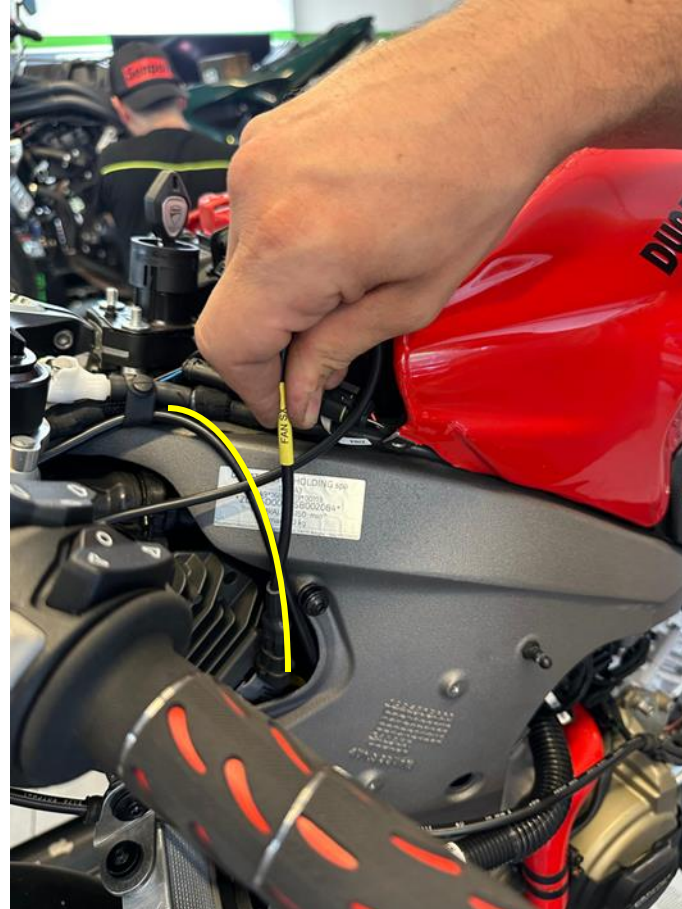


PUMP (POMPA)



Intelligent Engine Cooling

⦿ FAR PASSARE IL CAVO ETICHETTATO **PUMP** COME IN FIGURA

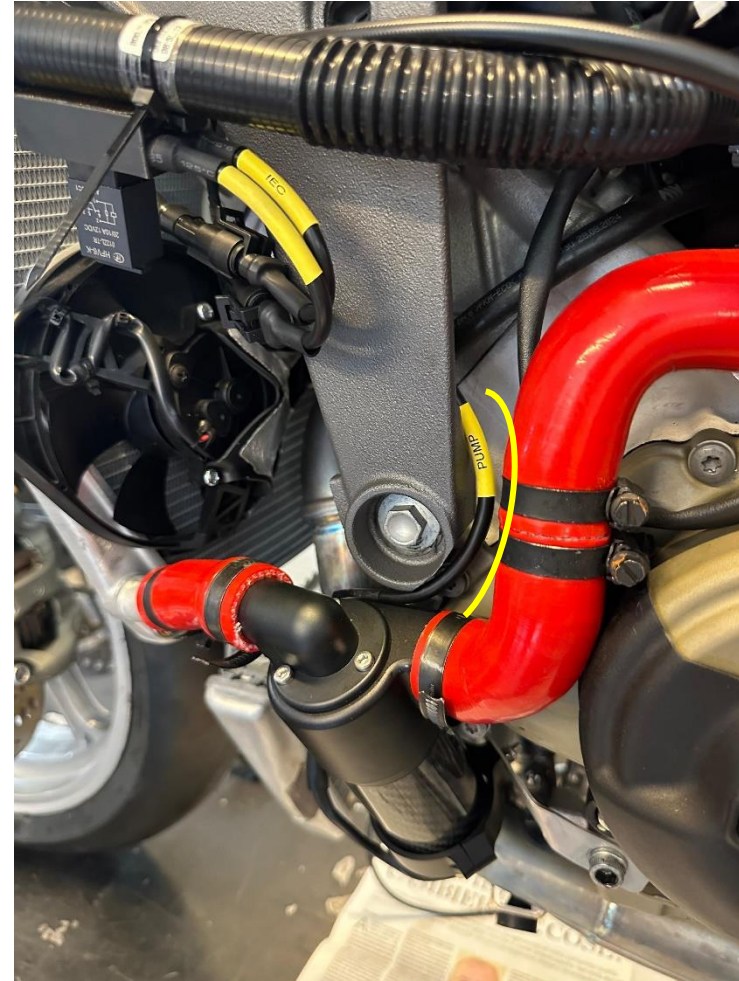


PUMP (POMPA)



Intelligent Engine Cooling

- CONNETTERE IL CAVO ETICHETTATO **PUMP** IN USCITA DALLA CENTRALINA **MONZA TECH** AL CAVO DELLA POMPA.
- UTILIZZARE DELLE FASCETTE PER FISSARE IL CABLAGGIO.



FAN-2 (VENTOLA DI DESTRA)

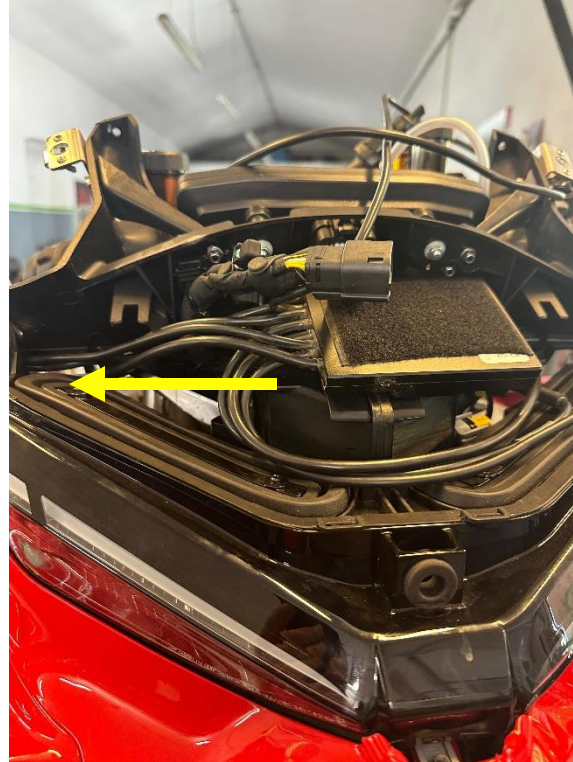
- FAR PASSARE IL CAVO ETICHETTATO *FAN DX* COME IN FIGURA
- DISCONNETTERE IL CAVO IN USCITA DALLA VENTOLA DESTRA E RIPETERE LE STESSE OPERAZIONI DESCRITTE PRECEDENTEMENTE PER *FAN SX*



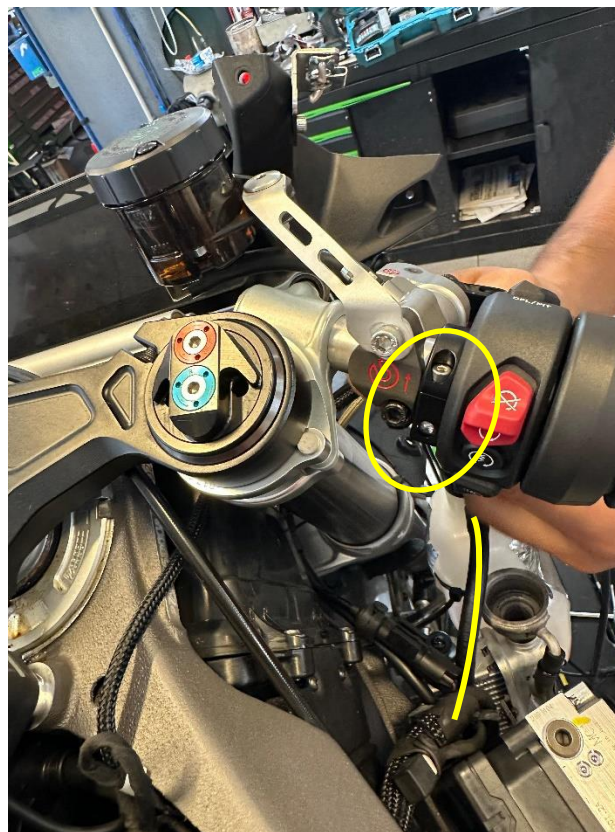
Intelligent Engine Cooling



- FAR PASSARE IL CAVO ETICHETTATO **LED** COME IN FIGURA
- NASCONDERE IL CAVO TRA TELAIO E MOTORE FIN DOVE POSSIBILE.



- ❶ ASSIEMARE CAVO **LED** AI CAVI DI SINISTRA DEL COMANDO TRIP COMPUTER USANDO LE FASCETTE IN GOMMA DEL CABLAGGIO ORIGINALE



- ❷ FISSARE IL **COLLARE LED** AL SEMIMANUBRIO DI DESTRA COME IN FIGURA CON ANGOLAZIONE TALE DA ESSERE BEN VISIBILE UNA VOLTA IN SELLA.

DIAGNOSTICA:

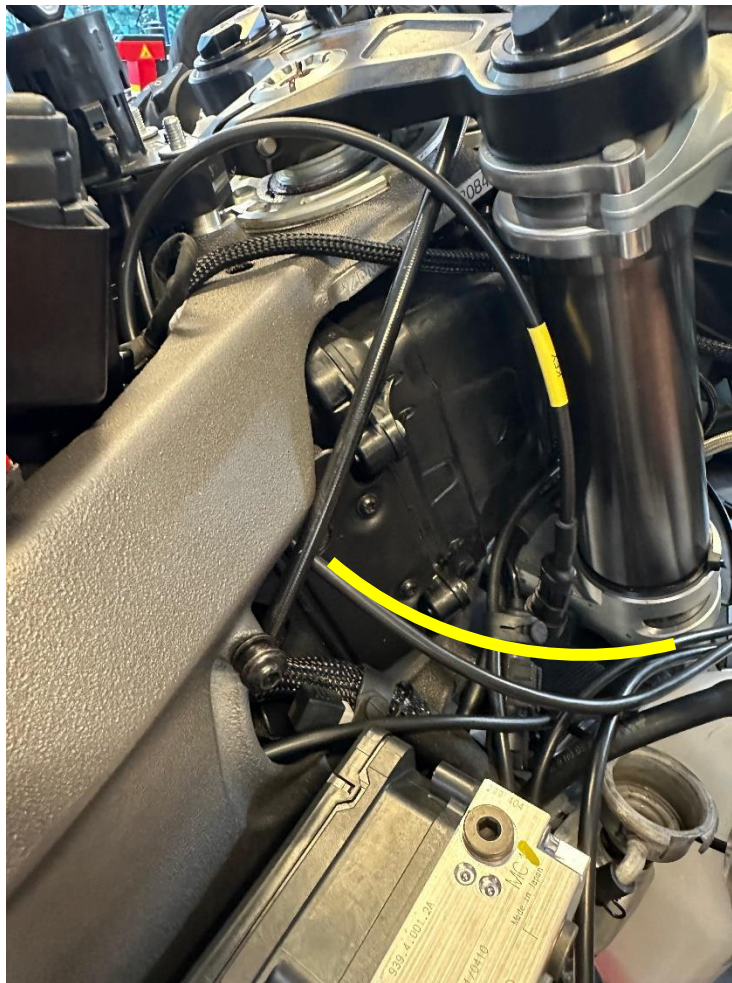
- LED VERDE: IL SISTEMA FUNZIONA CORRETTAMENTE

- LED ROSSO: WARNING!

IN CASO DI MALFUNZIONAMENTO DELLA POMPA ELETTRONICA, IL SISTEMA DI RAFFREDDAMENTO DELLA MOTO TORNA A FUNZIONARE COME L'ORIGINALE EX FACTORY.

KEY

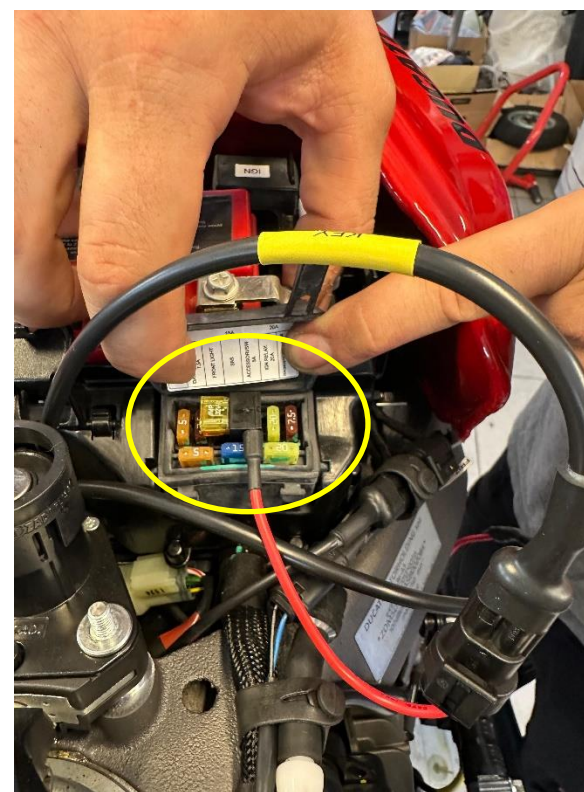
● FAR PASSARE IL CAVO ETICHETTATO **KEY** COME IN FIGURA



Intelligent Engine Cooling



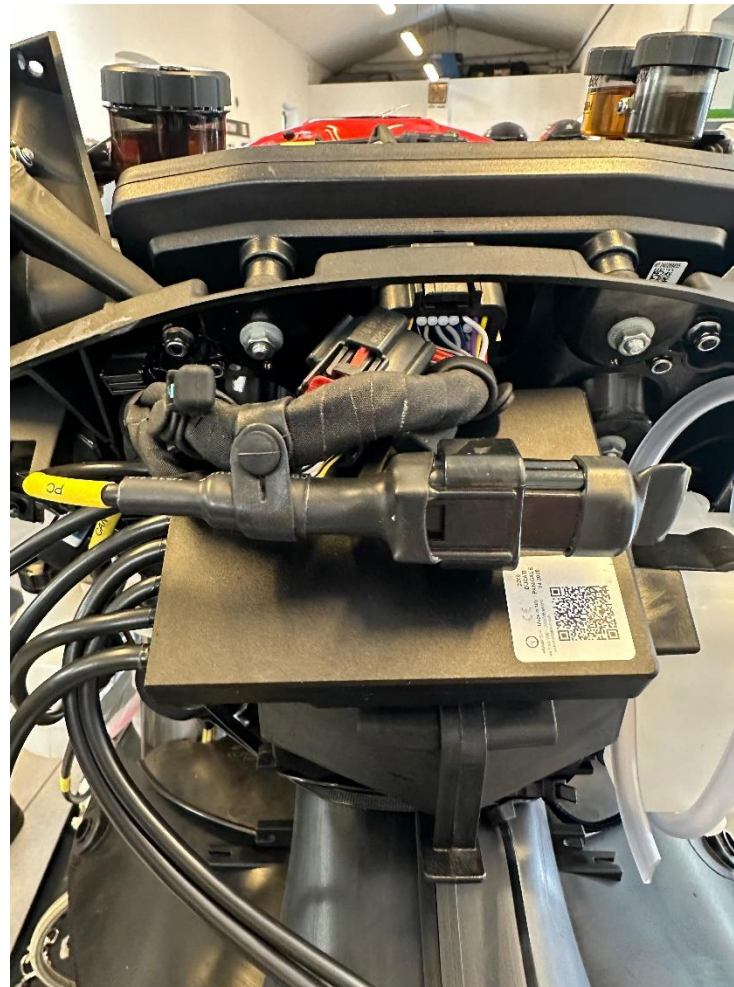
- RIMUOVERE IL FUSIBILE 'ACCESSORI' (INDICATO IN FIGURA) ORIGINALE DALLA SUA POSIZIONE.
- INSERIRE FUSIBILE APPENA RIMOSSO NELLO SLOT LIBERO DEL PORTAFUSIBILE IN DOTAZIONE CON IL CABLAGGIO *MONZA TECH*



- INSERIRE IL RUBACORRENTE AL POSTO DEL FUSIBILE RIMOSSO E CHIUDERE LA FUSIBILIERA

PC

- FISSARE IL CAVO ETICHETTATO *PC* COME IN FIGURA, FISSARE VICINO ALLA CENTRALINA.



Intelligent Engine Cooling

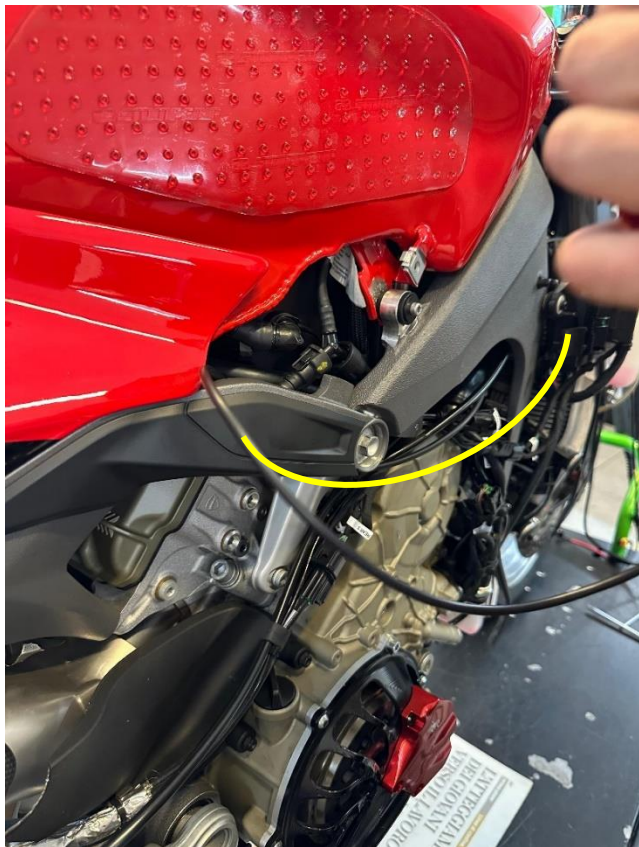


- FAR PASSARE IL CAVO NEL TELAIO COME IN FIGURA



- QUESTO CAVO CONSENTE AL SISTEMA **MONZA TECH** DI CONNETTERSI ALLA CENTRALINA DELLA MOTO PRENDENDO L'INFORMAZIONE DELLA TEMPERATURA MOTORE. IL CAVO CAN **MONZA TECH** È SDOPPIATO IN MODO DA MANTENERE INALTERATE LE FUNZIONALITÀ DEL CONNETTORE ORIGINALE SIA PER LA PARTE DI DIAGNOSTICA CHE PER IL MANTENITORE DI CARICA DELLA BATTERIA.

- ⦿ FAR PASSARE IL CAVO ETICHETTATO **CAN** COME FATTO IN PRECEDENZA PER IL CAVO **PC** TRA TELAIO E SERBATOIO, STANDO ATTENTI A NON SCHIACCIARE I CAVI.



- ⦿ CONNETTERE IL CONNETTORE ORIGINALE CON QUELLO DEL CABLAGGIO **MONZA TECH** COME IN FIGURA.

CAVO BATTERY



Intelligent Engine Cooling

- SMONTARE LA COPERTURA DELLA BATTERIA. PASSARE IL CAVO PRINCIPALE DIETRO ALLA BATTERIA
- COLLEGARE IL CAVO NERO AL POLO NEGATIVO DELLA BATTERIA, MENTRE QUELLO ROSSO, CON IL PORTAFUSIBILE, AL POLO POSITIVO DELLA BATTERIA. FAR ATTENZIONE A NON PIZZICARE IL CAVO CON LA COPERTURA DELLA BATTERIA QUANDO LA SI RIMONTA





Intelligent Engine Cooling

 RIMONTARE TUTTE LE CARENE SEGUENDO IL MANUALE D'OFFICINA DELLA MOTO.





Intelligent Engine Cooling

FASE 5

GODITI IL VIAGGIO!





Intelligent Engine Cooling

ENGLISH VERSION STARTS NOW





Intelligent Engine Cooling



MONZATECH

INTELLIGENT ENGINE COOLING





Intelligent Engine Cooling

STEP 1

FAIRING REMOVAL



FAIRING REMOVAL



Intelligent Engine Cooling

 FOLLOWING THE DUCATI PANIGALE V4'S WORKSHOP MANUAL, DISASSEMBLE THE LEFT SIDE FAIRINGS



FAIRING REMOVAL



Intelligent Engine Cooling

● FOLLOWING THE DUCATI PANIGALE V4'S WORKSHOP MANUAL, DISASSEMBLE THE RIGHT SIDE FAIRINGS





Intelligent Engine Cooling

STEP 2

ORIGINAL COOLING CIRCUIT'S REMOVAL

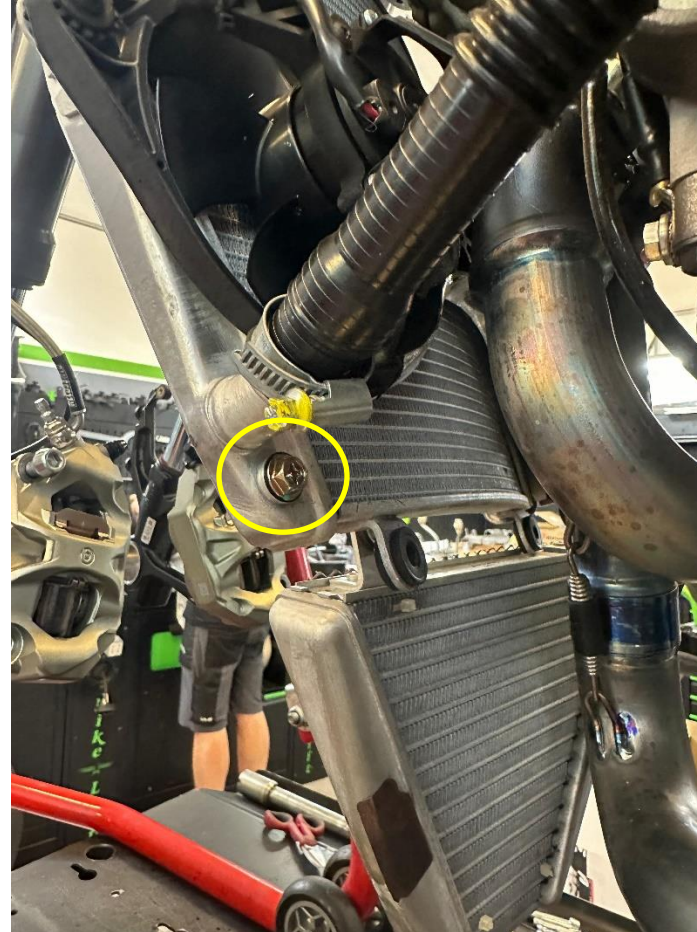


UNLOAD COOLING CIRCUIT



Intelligent Engine Cooling

- BLEED THE FIRST PART OF THE COOLANT FROM THE DOWNSIDE SCREW ON THE RADIATOR
- REMOVE THE RADIATOR CAP TO COMPLETELY DRAIN THE COOLING SYSTEM



UNLOAD COOLING CIRCUIT



Intelligent Engine Cooling

⦿ TIGHT THE SCREW TAKEN OUT BEFORE



HOSES REMOVAL



Intelligent Engine Cooling

- REMOVE THE ORIGINAL HOSE POINTED





Intelligent Engine Cooling

STEP 3

MONZA TECH'S COOLING SYSTEM ASSEMBLY

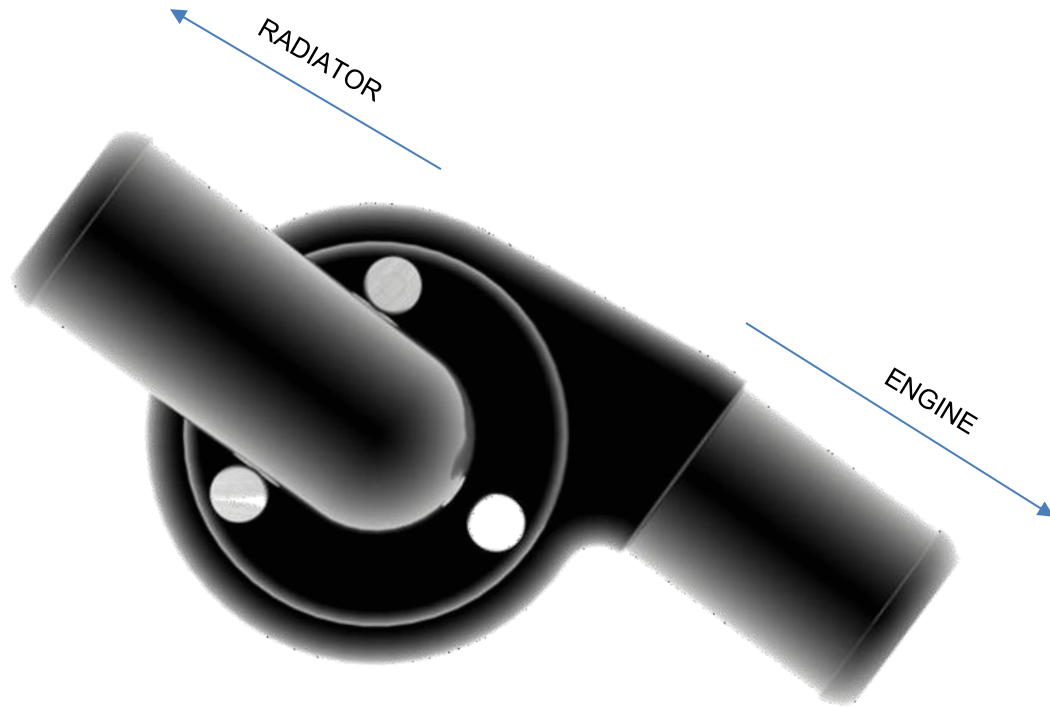


MONZA TECH'S WATER PUMP POSITIONING



Intelligent Engine Cooling

- FOLLOWING THE SHOWN POSITION, FIX THE 90° INLET TO THE PUMP WITH THE SUPPLIED SCREWS (M4X6)



MONZA TECH'S HOSES PLACEMENT



Intelligent Engine Cooling

- FIX THE **MONZA TECH'S** HOSES AS SHOWN IN PICTURE, BE SURE TO TIGHT THE BLACK METAL CLAMPS SUPPLIED
- FASTEN THE CLAMP BRACKET TO THE MOTORCYCLE





LOAD COOLING CIRCUIT



Intelligent Engine Cooling

- THE COOLING SYSTEM IS NOW COMPLETE AND CLOSED
- BEFORE GO ON LOADING THE SYSTEM WITH COOLANT, MAKE SURE TO HAVE TIGHTEN ALL METAL CLAMPS AND BRACKET'S SCREW
- POUR THE COOLANT INTO THE RADIATOR
- WE RECOMMEND TO SQUEEZ A FEW TIMES THE SILICONE HOSE TO LET AIR TO ESCAPE
ATTENTION: PLEASE REPEAT THIS STEP UNTILL THE COOLANT'S LEVEL INSIDE THE RADIATOR STAY COSTANT
- FULL THE RADIATOR
- CLOSE THE RADIATOR'S CAP





Intelligent Engine Cooling

! ATTENTION !

***NEVER TURN ON THE PUMP WITHOUT
COOLANT!***

***THE MECHANICAL SEAL INSIDE THE PUMP
MUST WORKS LUBRICATED***





Intelligent Engine Cooling

STEP 4

MONZA TECH'S ECU ASSEMBLY

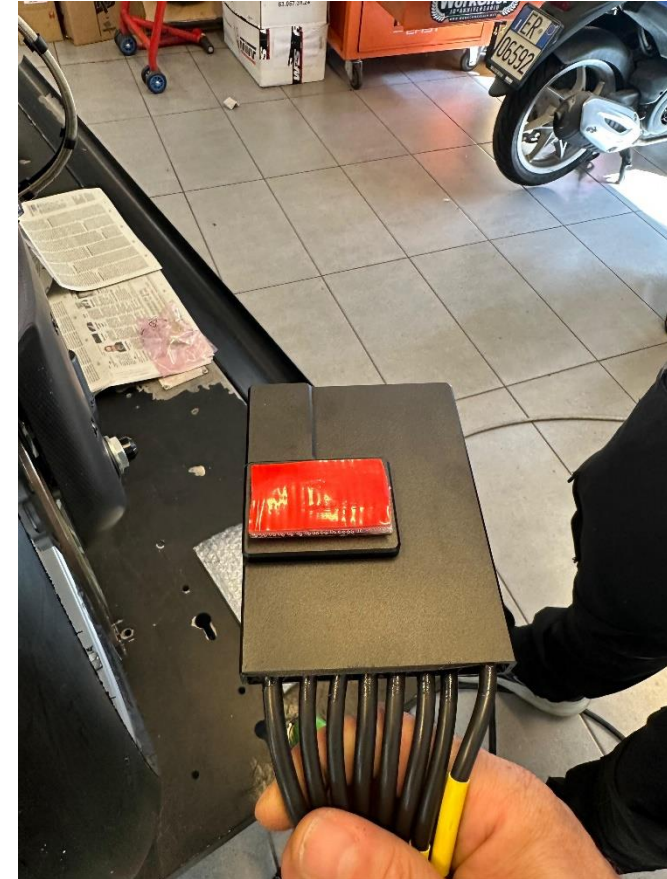


MONZA TECH'S ECU PLACEMENT



Intelligent Engine Cooling

- ATTACH THE VELCRO STRIPS AND THE DOUBLE-SIDED ADHESIVE TO THE MONZATECH ECU

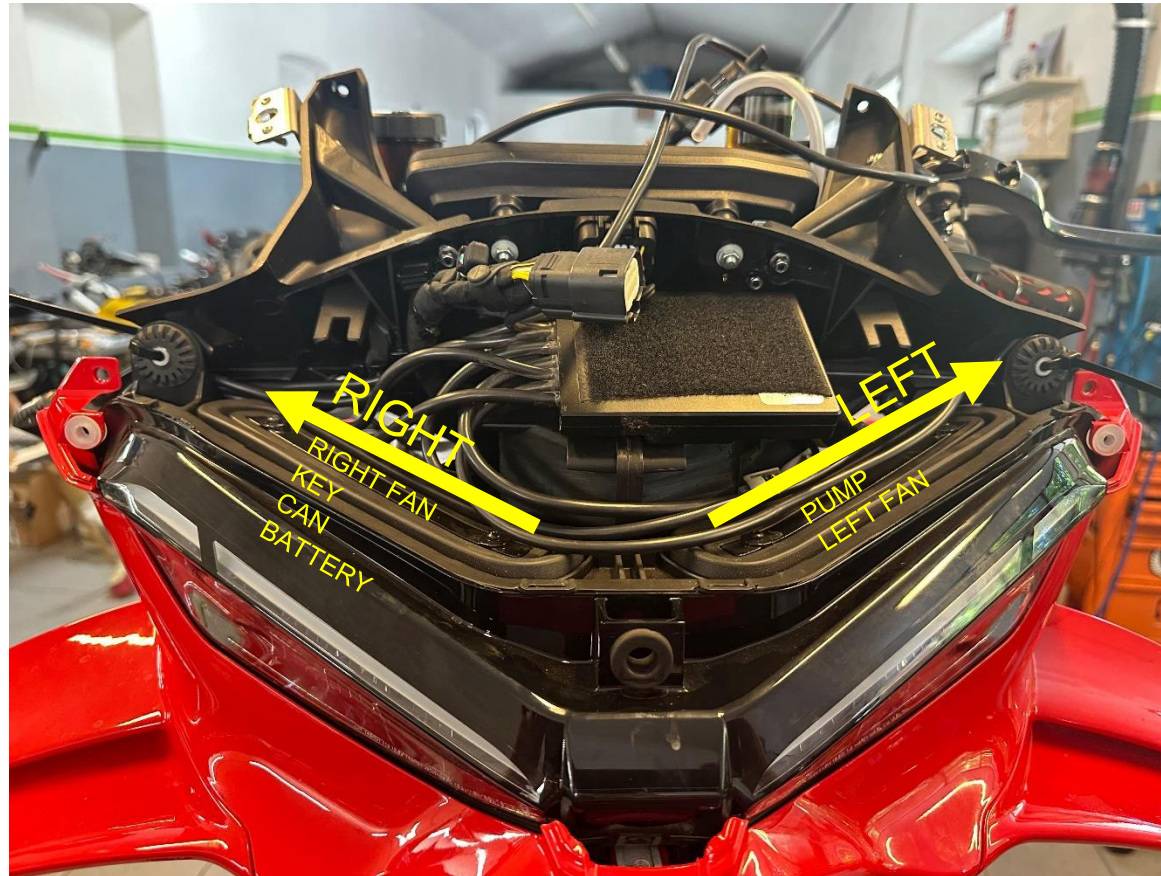


MONZA TECH'S ECU PLACEMENT



Intelligent Engine Cooling

- PUT THE ECU AS SHOWN IN FIGURE AND GO ON AS FOLLOWS FOR CABLE ROUTING

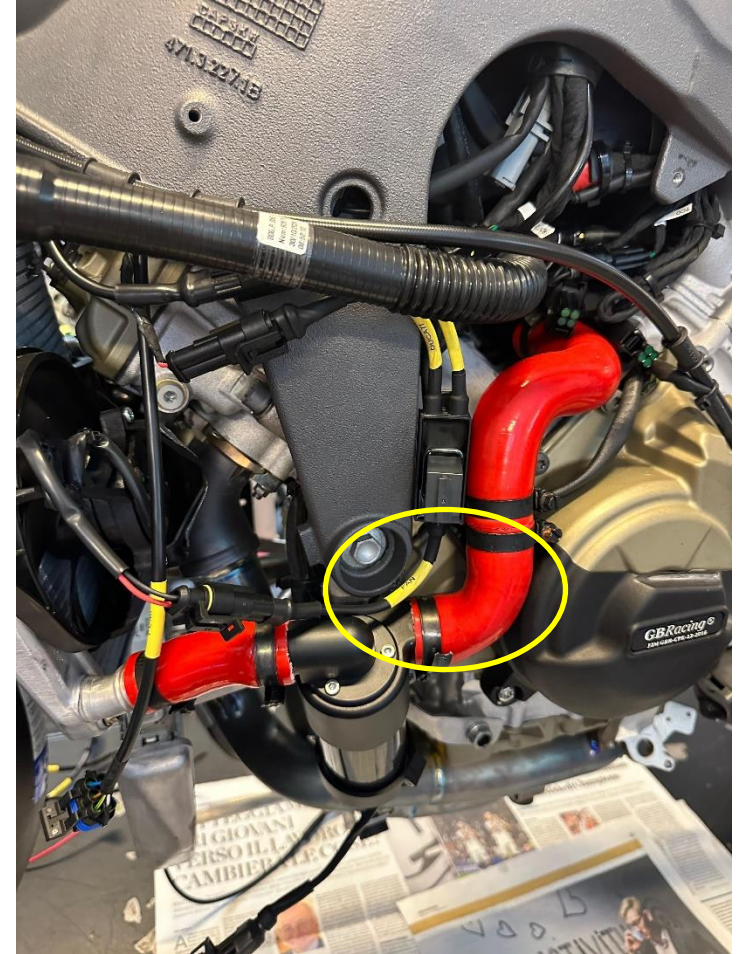
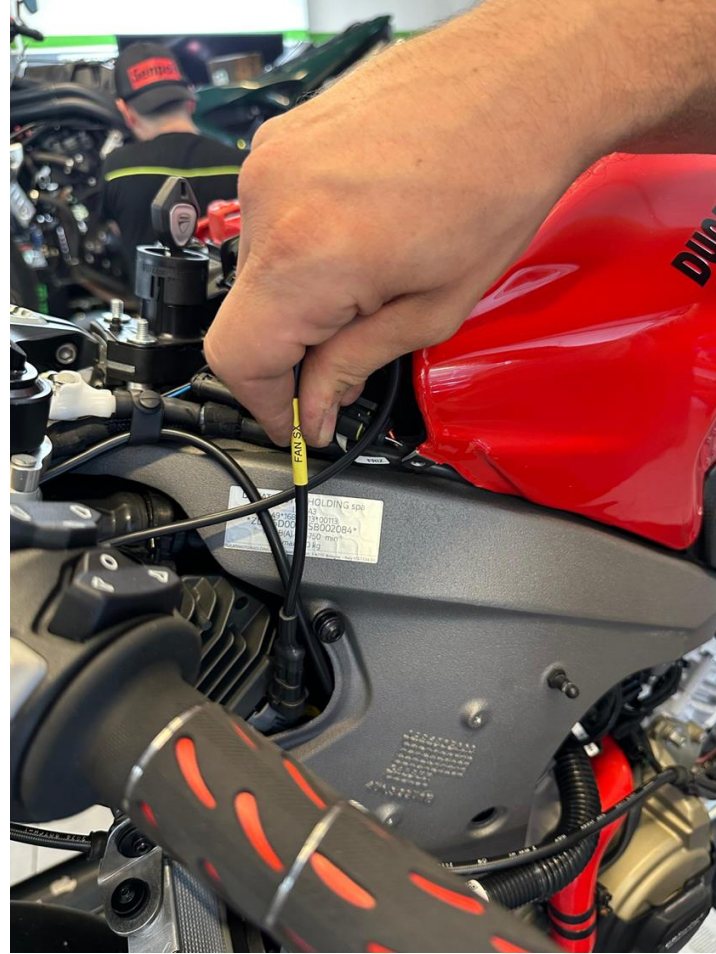
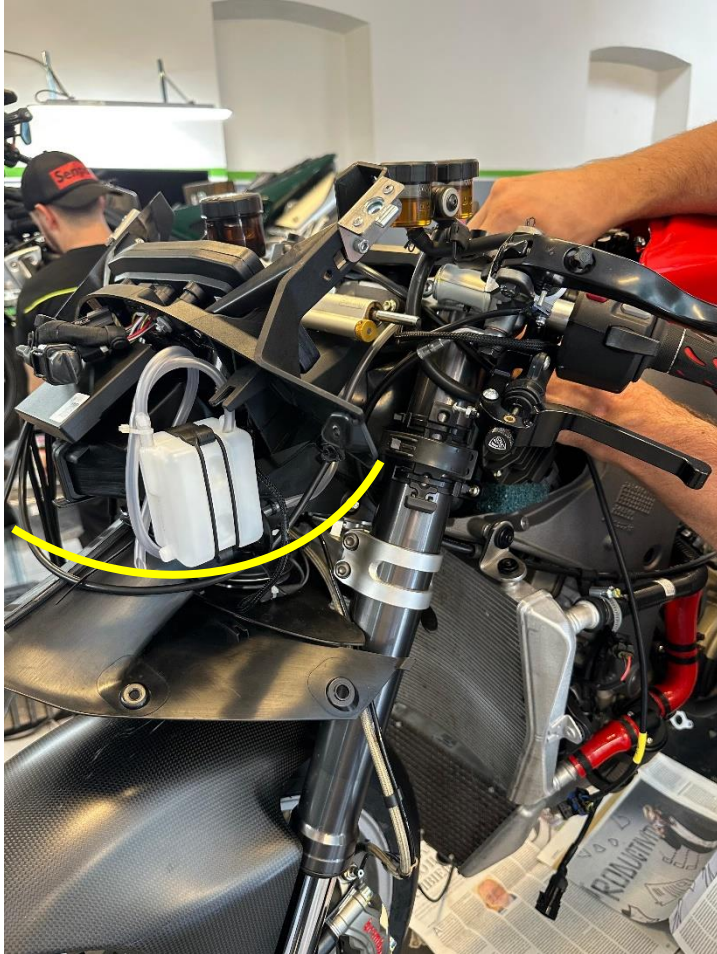


FAN CABLE



Intelligent Engine Cooling

- ROUTE THE CABLE LABELED FAN1 AS SHOWN IN THE FIGURE (FOLLOW THE FRAME AND THEN USE THE CLUTCH CABLE AS A GUIDE).

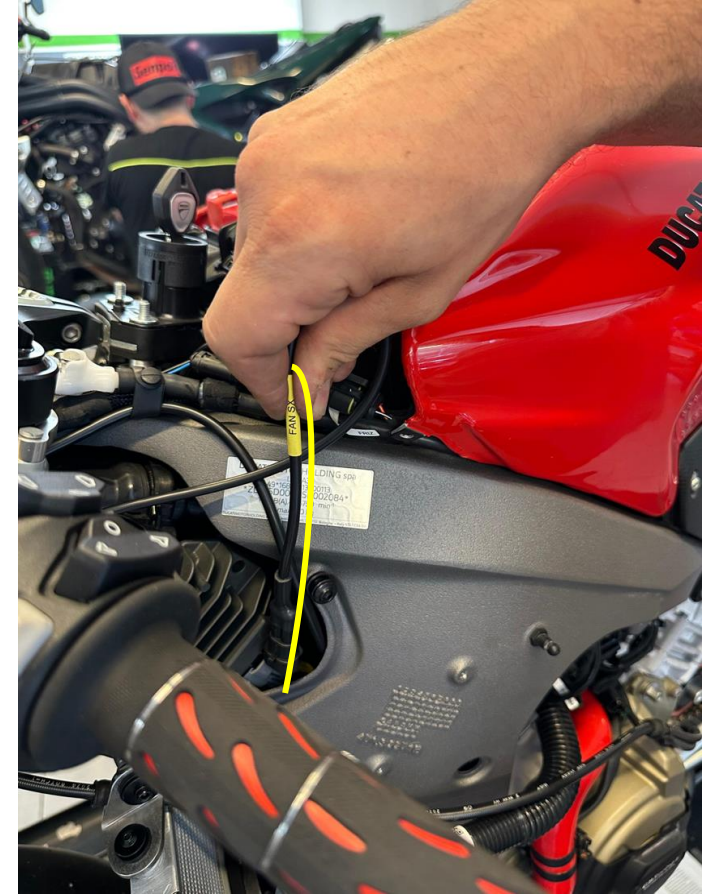
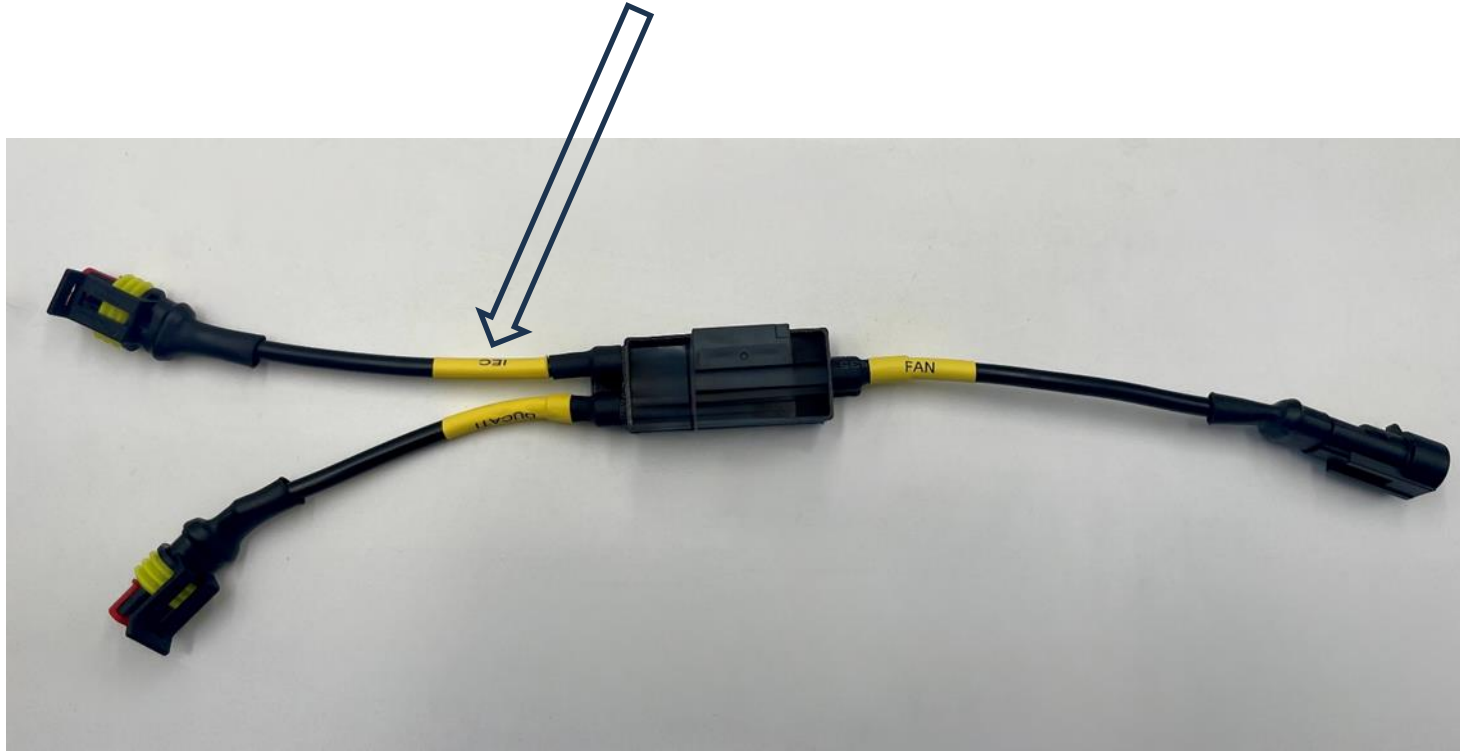


FAN-1 (LEFT SIDE FAN)



Intelligent Engine Cooling

RUOTE THE *FAN1* CABLE AS SHOWN IN FIGURE (FOLLOW THE FRAME AND THEN THE CLUTCH CABLE)

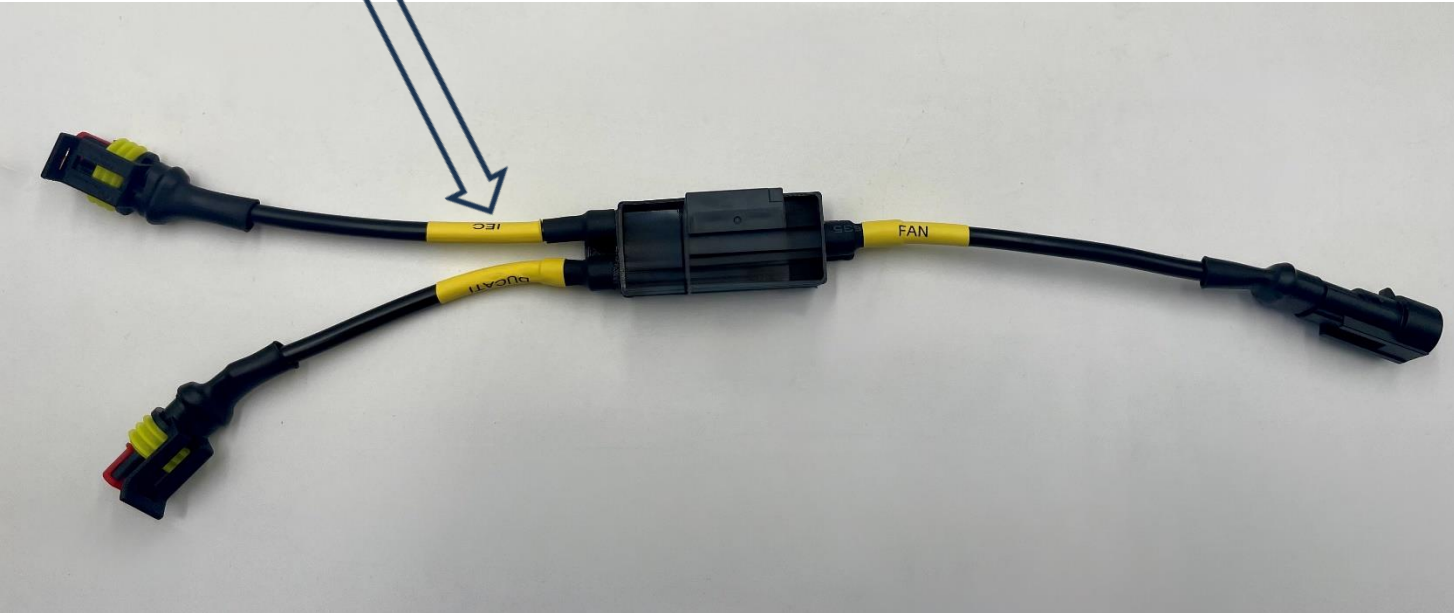
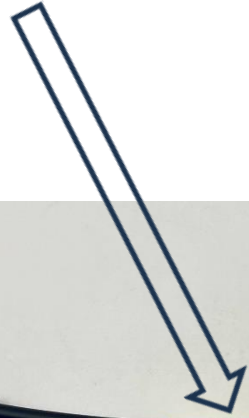


FAN-1 (LEFT SIDE FAN)



Intelligent Engine Cooling

CONNECT THE WIRE LABELED *IEC* OF THE RELÈ TO THE WIRE LABELED *FAN1* OF THE ECU

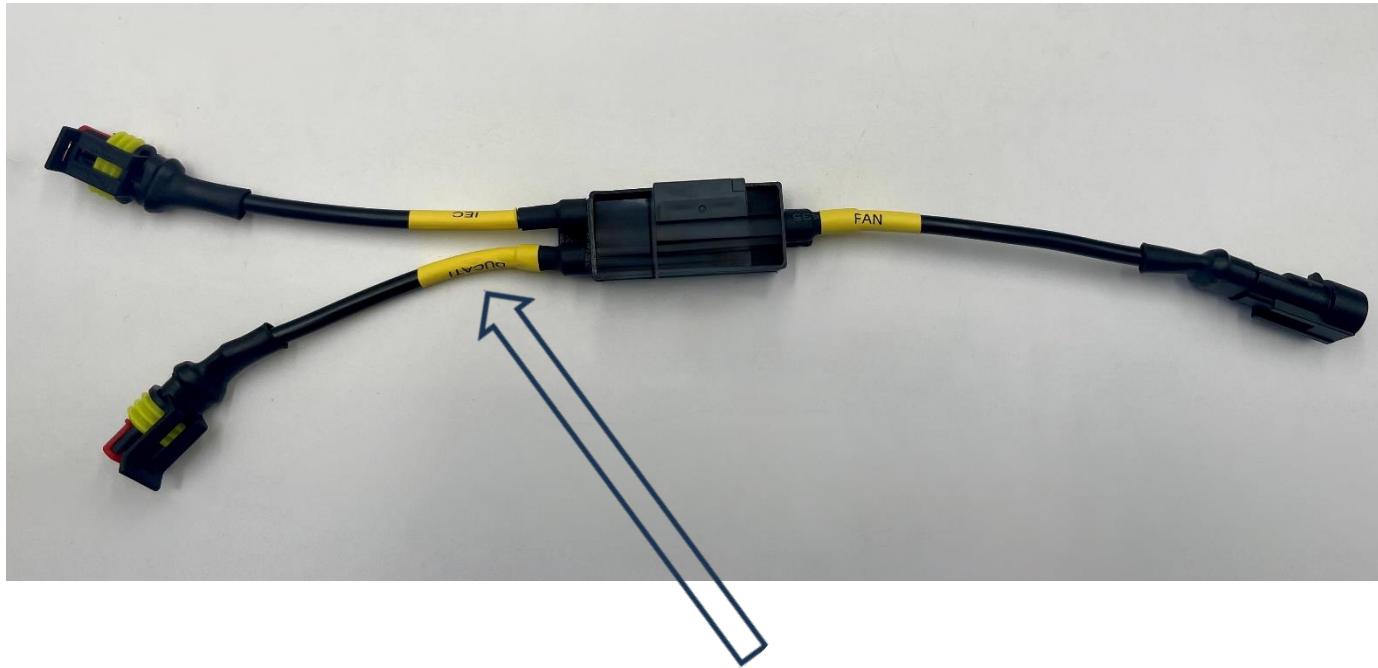


FAN-1 (LEFT SIDE FAN)



Intelligent Engine Cooling

- ⚙️ CONNECT THE CABLE LABELED DUCATI FROM THE RELAY TO THE ORIGINAL FAN POWER SUPPLY WIRING.



- ⚙️ USE THE INDICATED HOLE ON THE CARBON BRACKET TO SECURE ONE OF THE CONNECTORS. FASTEN THE CABLES AND THE RELAY WITH CABLE TIES.



FAN-2 (RIGHT SIDE FAN)

- ROUTE THE *FAN2* WIRE AS SHOWN IN FIGURE
- UNPLUG THE RIGHT FAN WIRE AND REPEAT THE SAME STEPS DESCRIBED FOR *FAN1*



Intelligent Engine Cooling

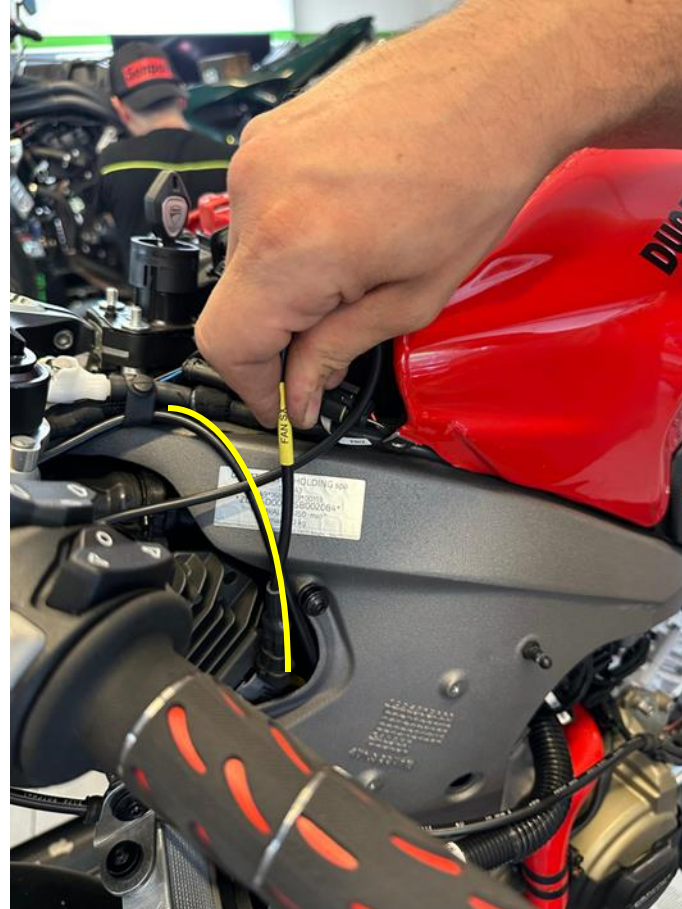


PUMP (POMPA)



Intelligent Engine Cooling

- ROUTE THE **PUMP** WIRE AS SHOWN IN FIGURE (FOLLOW THE FRAME AND THEN THE CLUTCH CABLE)

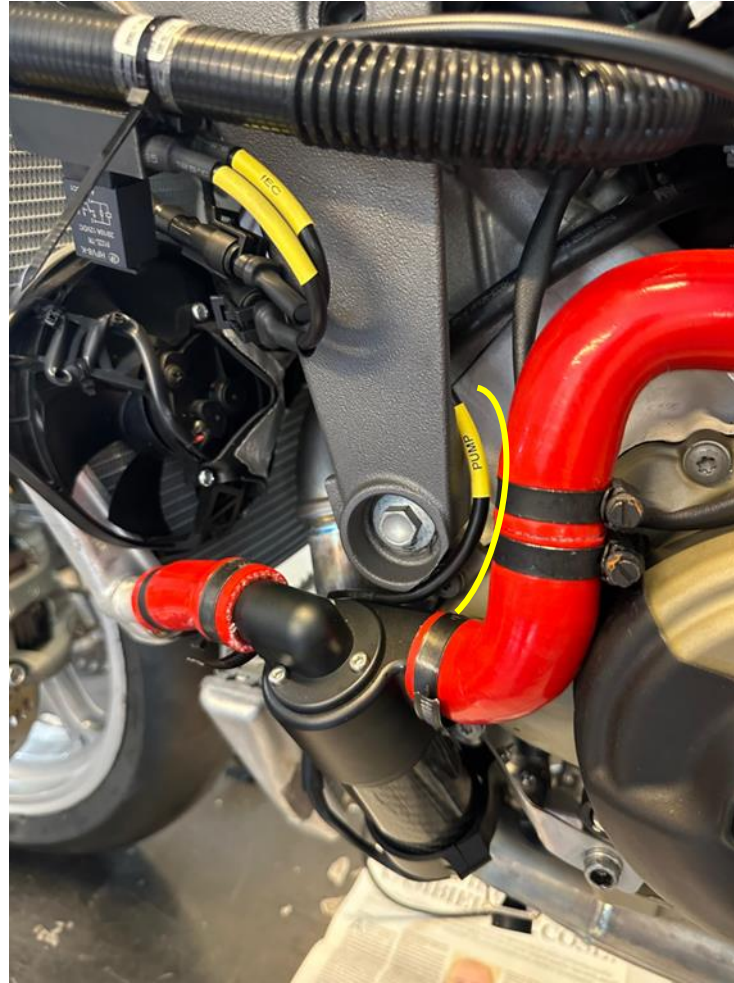


PUMP (POMPA)

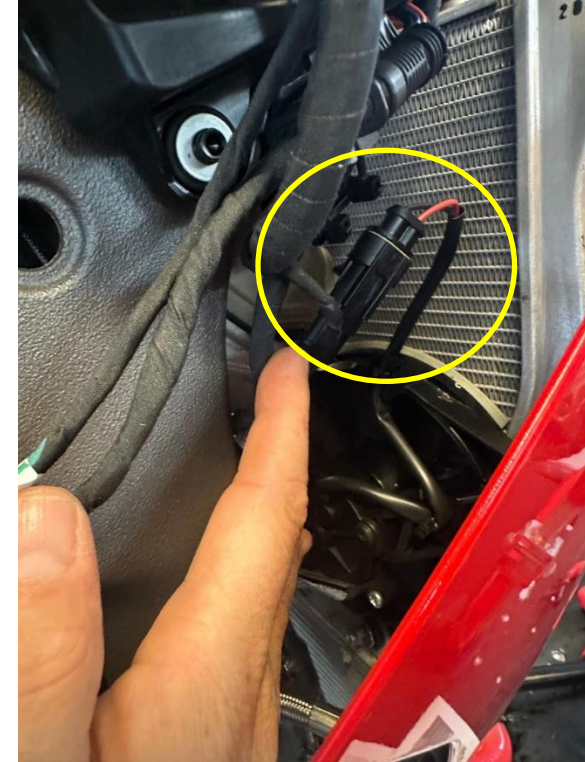


Intelligent Engine Cooling

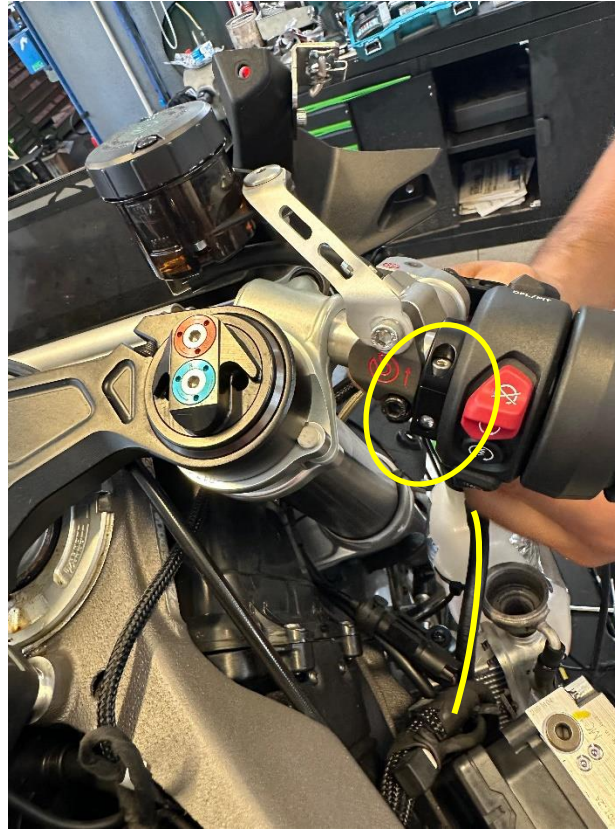
- PLUG THE **PUMP** WIRE EXITING FROM THE **MONZA TECH'S** ECU TO THE PUMP CONNECTOR SHOWN IN FIGURE
- FIX THE WIRE WITH CABLE TIE.



- ROUTE THE **LED** WIRE AS SHOWN IN FIGURE
- HIDE THE WIRE BETWEEN FRAME AND ENGINE TILL POSSIBLE.



- FOLLOW THE ORIGINAL WIRE AND FIX THE **LED** WIRE USING THE ORIGINAL RUBBER TIE AS SHOWN IN FIGURE.



- FIX THE **LED BRACKET** TO THE RIGHT HANDLEBAR AS SHOWN IN FIGURE IN ORDER TO BE VISIBLE BY THE RIDER.



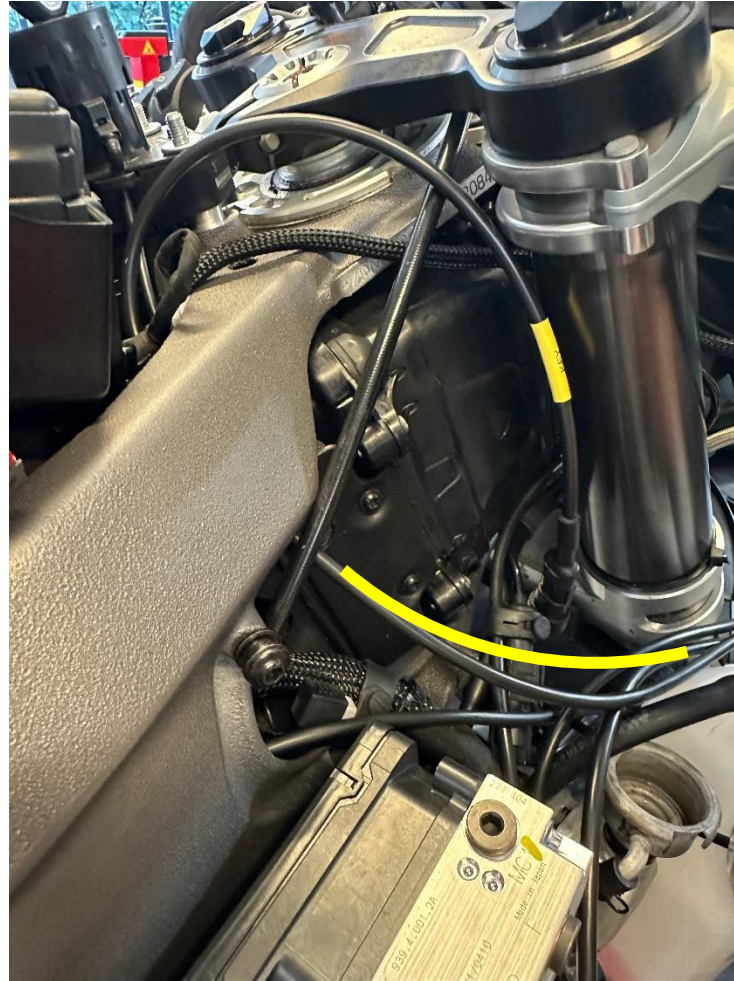
DIAGNOSTIC:

- GREEN: SYSTEM WORKS FINE
- RED: WARNING!

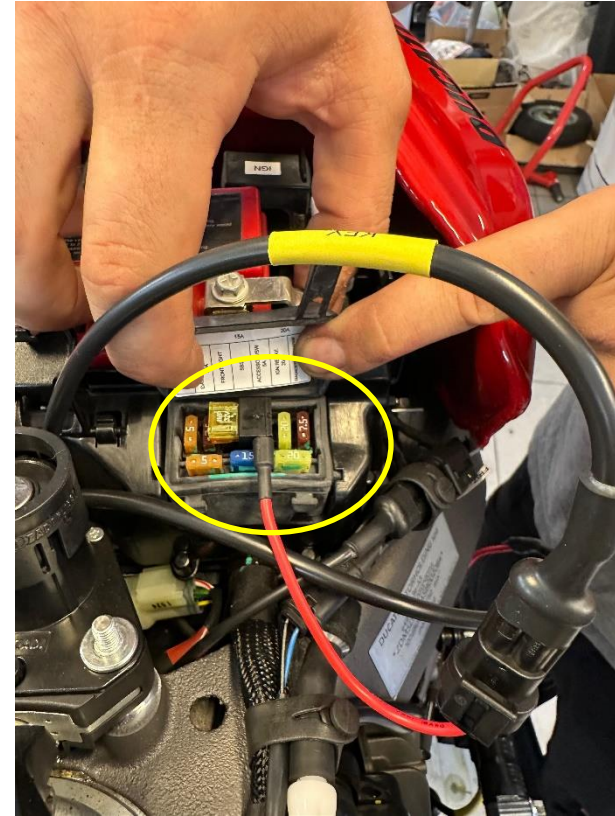
IN CASE OF MALFUNCTION OF THE IEC - INTELLIGENT ENGINE COOLING SYSTEM, THE COOLING SYSTEM OF THE BIKE COMES BACK TO WORK AS THE ORIGINAL ONE EX FACTORY.



ROUTE THE **KEY** WIRE AS SHOWN IN FIGURE

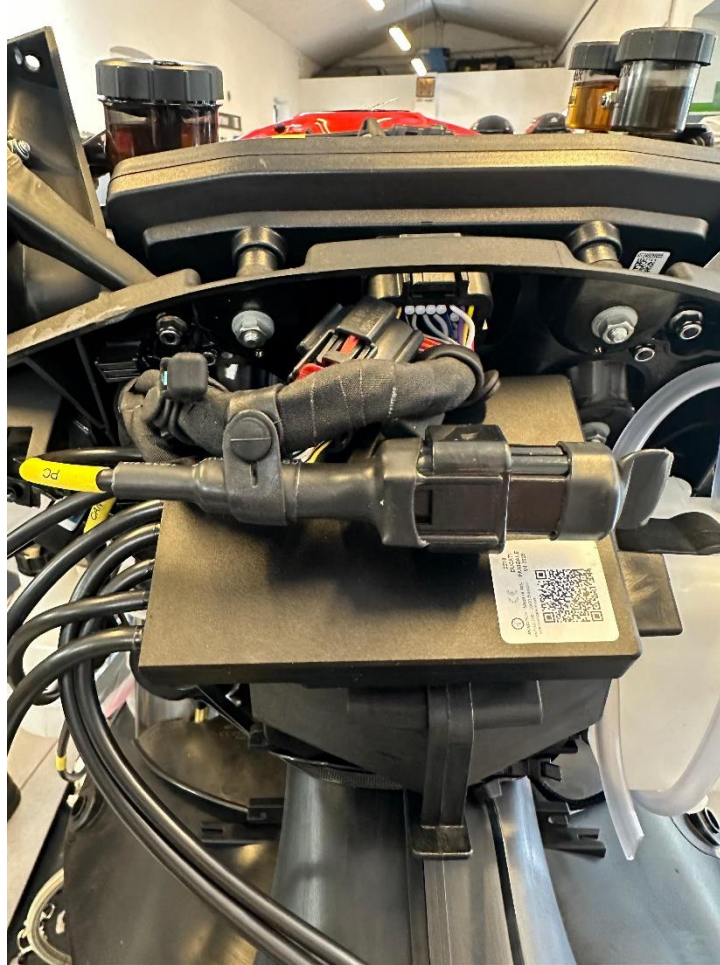


- REMOVE THE FUSE POINTED IN FIGURE FROM THE FUSE BOX.
- PUT THE FUSE JUST REMOVED INTO THE FREE SLOT OF THE FUSE HOLDER AS SHOWN IN FIGURE.

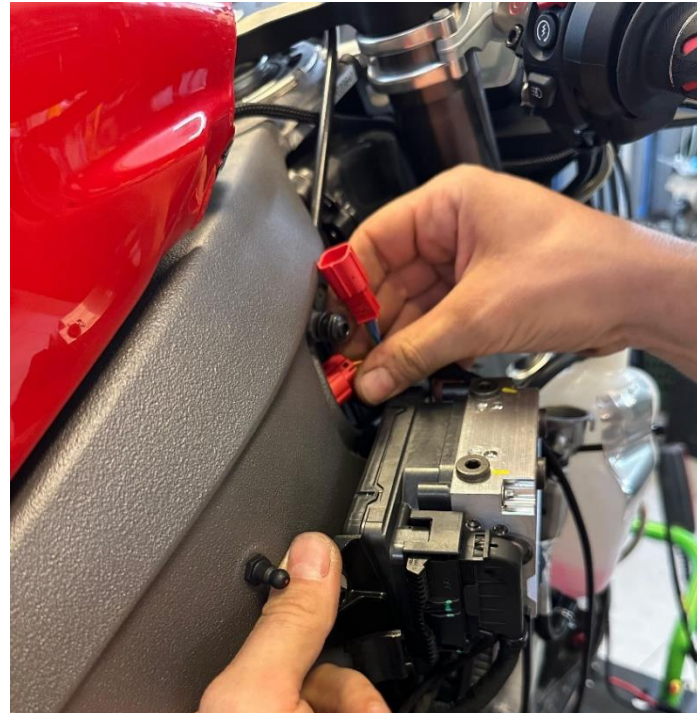


- PUT THE *MONZA TECH* FUSE HOLDER IN THE SAME SLOT OF THE FUSE AND CLOSE THE FUSE BOX.

- ROUTE THE *PC* WIRE AS SHOWN IN FIGURE AND FIX NEAR THE CONTROL UNIT

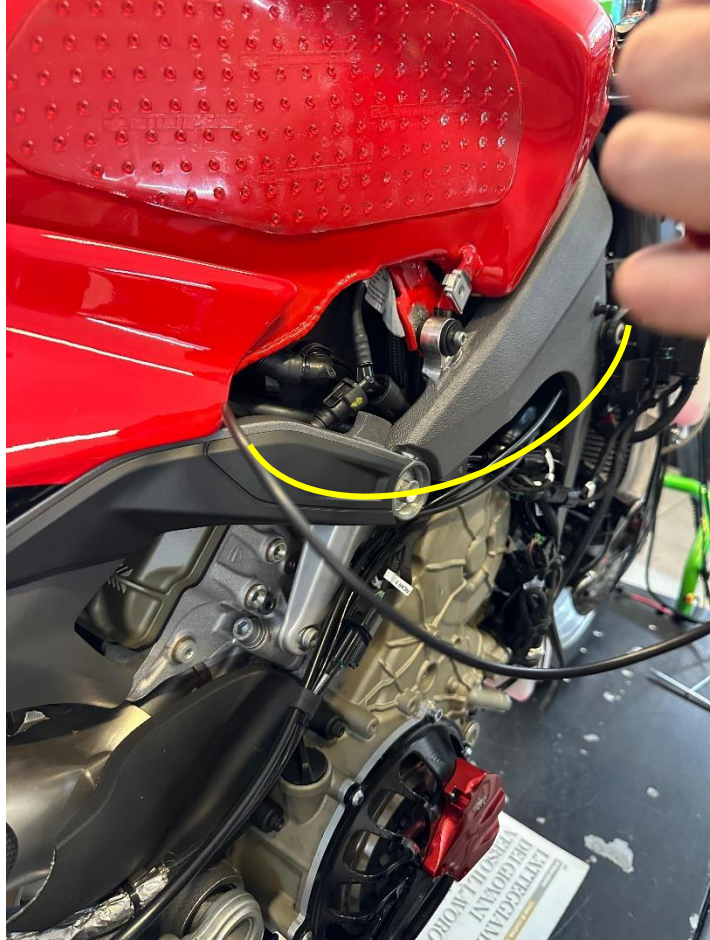


ROUTE THE CABLE THROUGH THE FRAME AS SHOWN IN THE FIGURE



THIS CABLE LET THE **MONZA TECH'S** SYSTEM CONNECTING TO THE ORIGINAL ECU OF THE BIKE READING THE ENGINE'S TEMPERATURE. THE **MONZA TECH'S CAN** CABLE IS DOUBLED IN ORDER TO KEEP UNALTERED THE FUNCTIONALITY OF THE ORIGINAL CONNECTOR BOTH FOR THE DIAGNOSTIC PART AND FOR THE BATTERY HOLDER

- ROUTE THE CABLE LABELED CAN AS PREVIOUSLY DONE FOR THE PC CABLE, BETWEEN THE FRAME AND THE TANK, MAKING SURE NOT TO PINCH THE CABLES.



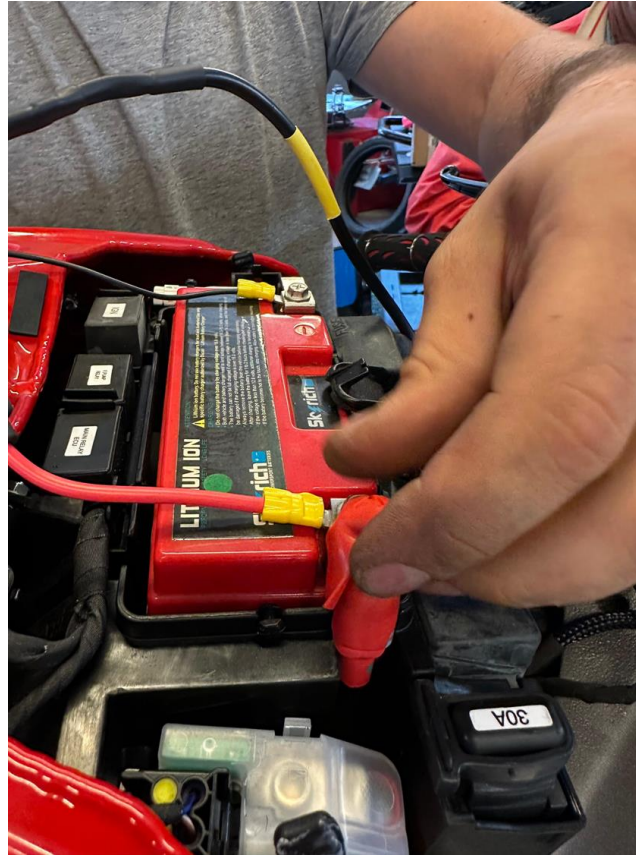
- CONNECT THE ORIGINAL CONNECTOR WITH THE MONZATECH WIRING CONNECTOR AS SHOWN IN THE FIGURE.

BATT (BATTERY)



Intelligent Engine Cooling

- ① DISASSEMBLE BATTERY'S COVER. ROUTE THE CABLE BEHIND THE BATTERY AS SHOWN IN FIGURE
- ② CONNECT BLACK CABLE TO THE BATTERY'S NEGATIVE, WHILE THE RED ONE, WITH THE FUSE HOLDER, TO THE BATTERY'S POSITIVE. BE CAREFUL TO NOT PINCH THE CABLE WITH BATTERY'S COVER WHEN REASSEMBLING IT.





Intelligent Engine Cooling

⦿ PUT BACK ON ALL THE FAIRINGS FOLLOWING THE WORKSHOP MANUAL.





Intelligent Engine Cooling

STEP 5

ENJOY YOUR TRIP!





Intelligent Engine Cooling



MONZATECH

THE NEW WAY OF COOLING

