



Hyundai compatible ATS controller

PREFACE

This ATS controller PCB is designed to upgrade some Hyundai diesel generators with auto start function (wireless control from a key fob is optionally available). Some Hyundai generators have 3 pin ATS socket available without ATS controller fitted hence left deactivated. Our ATS controller could be a solution in this case. The ATS controller PCB has 6 automatic starting attempts for reliable engine start and "engine running" monitor which is automatically checking the state of engine between each starting attempt and also constantly after successful start. Should the ATS controller run out of starting attempts and engine couldn't start, the ATS controller will indicate this failure by intermittent sound. To reset the ATS controller: press button "B" on your key fob or, if the engine was initially operated from the ATS panel - disconnect the 3 pin plug and/or switch off the "generator start" request from ATS panel connected to it.

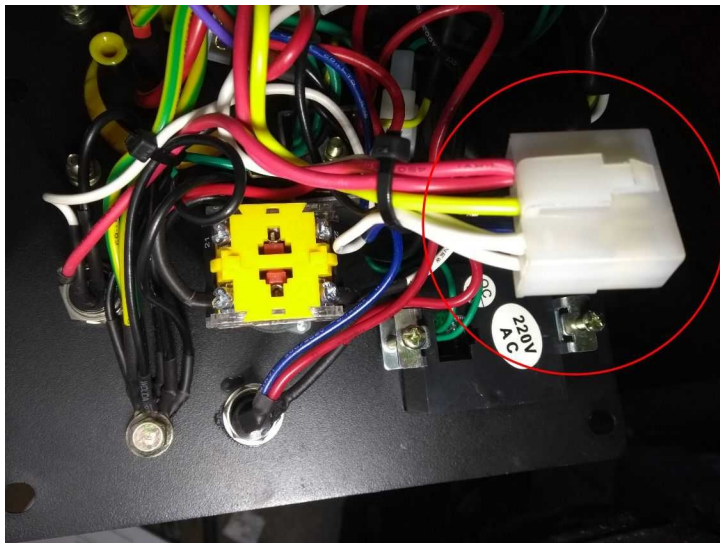
Undo 6 bolts and pull down the front panel



IMPORTANT !
BEFORE FITMENT: DISCONNECT YOUR GENERATOR STARTING BATTERY NEGATIVE TERMINAL (FOR SAFETY REASONS)

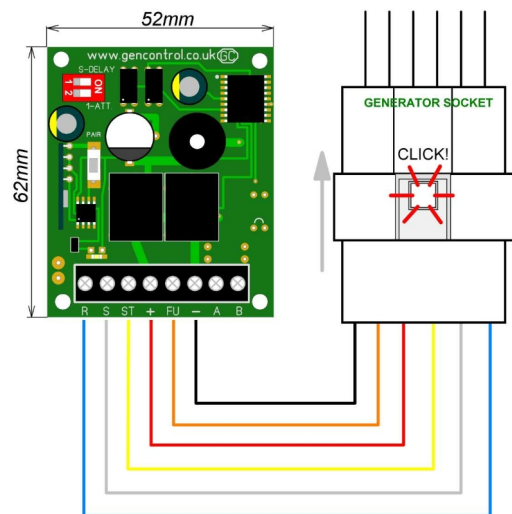
STEP 1

Find free hanging 6 pin plug as on the picture below:



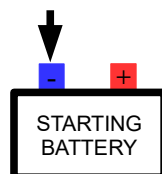
STEP 2

Plug in the ATS controller cable to the generator socket as shown and fit the PCB where possible with 4 sticky pads provided. Then fit the generator front panel back on and tighten bolts.



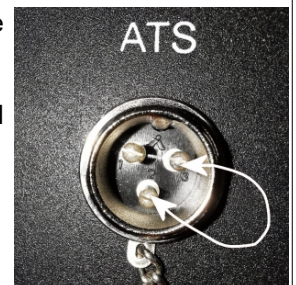
STEP 3

Connect the negative lead back to starting battery terminal.



STEP 4

Test the ATS socket: Make sure the ignition key switch is in "OFF" position. link pin 2 and 3 with a piece of wire. The generator should try to start and run while pin 2 and 3 linked. Test wireless control: press button "A" on the key fob, generator should start and run. Press button "B" to stop. Job done!





DIP switch positions and functions

DIP switch 1 ON	10sec start delay	Intermittent sound accompaniment
DIP switch 1 OFF	Immediate start	No sound
DIP switch 2 ON	1 starting attempt mode (2sec)	Select this mode if "Engine Running" signal not available.
DIP switch 2 OFF	6 starting attempts: 2-3-4-5-6-7sec (we can customise these figures!)	7sec pause between each starting attempt, intermittent sound after the last unsuccessful attempt.

- 10 sec start delay is used in combination with an ATS panel to prevent multiple short start-stop commands coming from the ATS panel while the mains unstable during blackout.
- 1 starting attempt mode can be used with some Hyundai generators which don't provide the "Engine running" +12V signal after the successful engine start. This signal (sensing by terminal "R") is required to restrict the next follow up starting attempt if the engine is already running. The DIP switch 2 "ON" will make the controller producing only 1 starting attempt.
- The loss of "engine running" signal during the normal engine run will cause the controller to shut down the generator and producing the continuous alarm sound.

ATS Controller PCB

