

Control Unit for Key Switch Type Generator

Model: ECU-04



ISO 9001/CNS 12681

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Auto Start Control Unit

1. USAGE

The ECU-04 Generator Auto Start Control, simply changes any manual key start generator to auto-start by automatically mimicking the action taken by someone turning the panel key and starting the generator manually.

The ECU-04 automatic initiation of the generators starting cycle by using the standard two-wire signals from any Automatic Transfer Switch or any standard remote mounted on/off switch.

In case the generator fails to start the first time, the ECU-04 tries two more times, preheating and turning the starter each time. All of this is programmable and adjustable by using the interval timers.

In Addition the ECU-04 can be adapted for use on Gasoline, and Gas powered engines by changing the DIP Switch position on the ECU-04.

2. STANDARD FEATURES

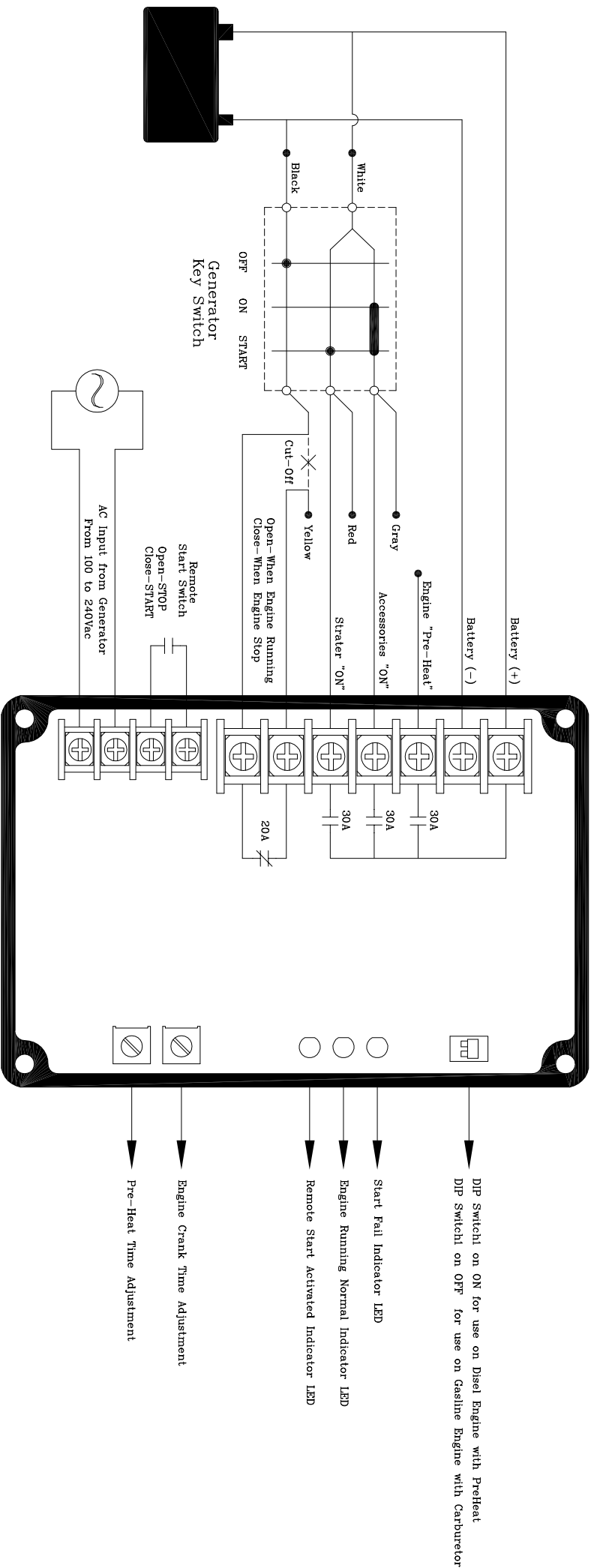
- ◆ Inexpensive, small in size, low power consumption and easy to set up
- ◆ Connected by the use of a terminal block, Easy for installation and repairing.
- ◆ Operates with a single chip microprocessor, Epoxy encapsulation makes the ECU-04 dependable and reliable.
- ◆ The standard three attempts multi-start function can be factory modified by customer request.

3. ELECTRICAL CONNECTIONS

PIN No.	DESCRIPTION	NOTES
1	DC Plant Supply Input (+v)	System DC positive input (Battery Positive).
2	DC Plant Supply Input (-v)	System DC negative input (Battery Negative).
3	Programmed Pre-heat or Engine choke signal output	Used turn on the internal engine pre-heater Supply (+v) 30 Amp rated (If used)
4	Accessories "ON" Output	Connect to Key switch accessories ON position.
5	Starter signal Output	Used to control the Starter Motor Supply (+v). 30 Amp rated
6 & 7	Auxiliary Dry contact Output	OPEN when engine running CLOSE when engine failure or stop 20 Amp rated
8 & 9	Remote start Signal input	Connect to A.T.S device or Remote Switch
10 & 11	Generator AC sensing input.	Connect to alternator AC output.

4. TIME DELAY SETTING AND ALARM INDICATORS

- ◆ **VR1:** Pre-heat engine timer adjustment 1~25 seconds range - factory set for 5 seconds (Please refer to FIG-1 below)
- ◆ **VR2:** Starter cranking time adjustment 1~25 seconds range - refer to the generator user's guide 4 to 8 seconds suggested. (Please refer to FIG-1 below.)
- ◆ **L1:** Remote start activated indicator LED. (Please refer to FIG-1 below.)
- ◆ **L2:** Engine running normal indicator LED. (Please refer to FIG-1 below.)
- ◆ **L3:** Start fail indicator LED. (Please refer to FIG-1 below.)
- ◆ **SW:** ON for use on Diesel Engine with Pre-Heat, OFF for use on Gasoline Engine with Carburetor



Wiring Diagram for Changfa Generator