

WARRANTY CARD

MODEL :
 CUSTOMER NAME :
 ADDRESS :
 MOBILE NO :
 DEALER STAMP :
 PURCHASE DATE :

Terms and Conditions:

1. Warranty period 1 year
2. Warranty does not cover for product failure due to high voltage, mishandling and natural calamities.



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TECHNICAL SPECIFICATION

Input Voltage : 150V-450V
 Power consumption : 5w
 Protection circuit for : Phase failure, Phase imbalance, Dry run & over load and low voltage, high voltage cut off
 Timer : Inbuilt daily run timer, ON demand run timer, Cyclic timer, Real-time ON/OFF
 Wiring kit : Power cable - 0.5sqmm 3 core, CT cable - 0.5sqmm 6 core ON/OFF & SDL cable - 0.5sqmm 7 core
 CT Coil : 30/5 for three phase (external CT optional)
 Battery : Li-on 3.7v & 2100mAh
 Antenna : 5dbi External
 Enclosure : PC ABS with FR
 Network support : All GSM carriers upto 4G
 SIM : Micro
 Digital I/O (optional) : Interface for pressure, Flow, Temperature and Moisture
 External Interface's : Rs - 485
 Dimension : 17cm x 14cm x 8.8cm
 Weight : 0.65 kg



USER MANUAL FOR WIRELESS MOTOR CONTROLLER

1. PACKAGE CONTENTS



MCON cell phone motor starter



Battery



Wiring Kit



3 CT Coil



Mounting Screw



Marking Template

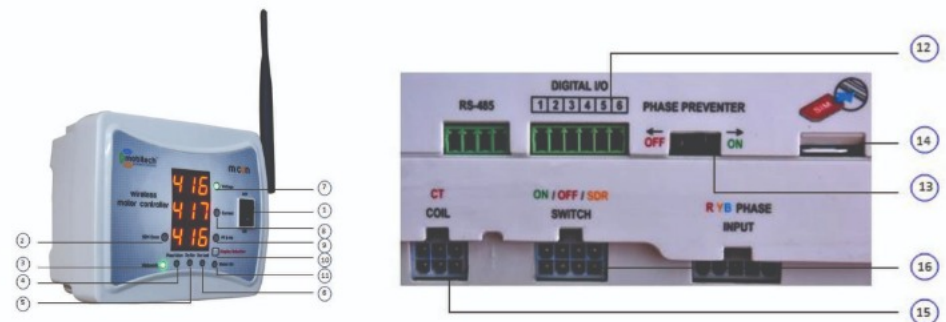


Antenna




User Manual Warranty



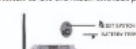
2. PARTS OF CELL PHONE MOTOR STARTER



- | | | | |
|-----------------------|---------------------|-----------------------------|---------------------------|
| 1 Power on/off switch | 5 Dry run | 9 Power factor & frequency | 13 Phase preventer Switch |
| 2 SIM Error Indicator | 6 Overload | 10 Display Selection Switch | 14 SIM Slot |
| 3 Network | 7 Voltage indicator | 11 Motor feedback | 15 CT Coil |
| 4 Motor phase failure | 8 Current indicator | 12 Sensor interface | 16 ON/OFF/SDR Relay |

- 2.1 Power ON/OFF switch:**
It helps to switch ON/OFF the Device
- 2.2 SIM Error:**
This light will glow in red color either the SIM card is not inserted properly or SIM damaged
- 2.3 Network:**
This LED blinks in two types
a) It blinks continually if not registered in network (0.3 sec ON & 0.5 sec OFF)
b) It blinks for every three seconds if registered in network (0.3 sec ON & 3 sec OFF)
- 2.4 Phase Failure**
In case of phase failure or phase imbalance this LED will glow in red color
- 2.5 Dry Run & Over Load**

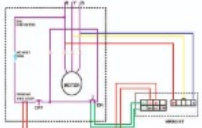
- 2.12 SIM Slot:**
- 
- a) Insert the micro SIM card shown in the picture.
b) Any network prepaid or postpaid 2G / 3G
c) All GSM carriers upto 4G
- 2.13 CT coil:**
a) The supplied CT coil rating is up to 0-30A.
b) If the motor rating is above 30A, use external CT and that connection is showed in the picture, and configures it by the CT configuration settings.

- 3.4** Connect manual connector as shown in picture
- 
- 3.5** Now check whether the Motor is switched ON/OFF Manually
Note: Motor won't on if wiring is wrong
- 3.6** Connect Battery
- 
- 3.7** Battery RESTART Switch
Press the restart switch to ON the mcon without power through the battery
- 

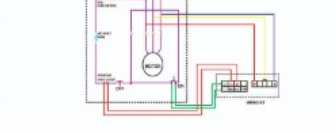
- 2.6 Voltage & Current Indicator:**
This display shows the line Voltage & line Current.
- 2.7 Power factor & frequency:**
This display shows the Power Factor and Frequency.
The top line shows Power factor and the bottom line shows the Frequency.
- 2.8 Display selection Switch**
Display selection switch is used to hold the display in Voltage/ Current/ Power factor & Frequency
- 2.9 Motor Feedback:**
If this LED glows in green, the Motor is ON. If this light not glow the Motor is OFF.

- 2.14 Extra Relay**
It can be used for either star to delta conversion in star delta starter or to switch ON/OFF pump/motor light.
- 3 INSTALLATION STEPS TO MCON CONTROL UNIT**
- 3.1** Ensure that the Motor ON/OFF Manually.
3.2 SWITCH OFF THE MAIN POWER and REMOVE ALL FUSE CARRIERS
3.3 Make wiring in starter according to wiring diagram for Direct Online (DOL) starter

- 3.8** Network LED starts to blink fast for one or two minutes and once it registered in network the blink interval goes slow.
- 3.9** Mark screw points with help of Marking template.
- 3.10** Mount the screws on the marked position of marking template
- 3.11** Fix the MCON call phone motor starter nearby starter
- 3.12** Connect the connectors to the device at the end of wiring kit
- 3.13** Insert fuses in fuse holder, (optional)
- 3.14** Connect the Removed fuse carriers and SWITCH ON THE MAIN POWER.



- 2.10 Sensor interface:**
It is a float input for Water Level Controller/ Water Level Indicator/ Pressure sensor / Temperature sensor
- 2.11 Phase preventer Switch:**
It prevents the motor from phase failure and phase imbalance.
If switch is ON preventer is enabled, if the switch is OFF preventer is disabled.
In Single phase connection this switch must be in OFF position.



- 4. BASIC CONFIGURATION**
- 4.1** Send SMS A1+ to MCON SIM number, it will send the confirmation SMS.
- 4.2** For Smart phone users download the app from play store (Android) / Apple stores (iPhone) and install it in your phone.
- 4.3** Refer the QR code at the end of manual.
- 4.4** Switch ON the motor from admin I
- 4.5** If REY is displayed in power factor & frequency mode turn the CT coil to opposite direction.
- 4.6** Set the dry run and over load levels based on running current of the motor (Ref: 7.1)
- 4.7** Switch OFF the motor from admin I

- 5 USER CONFIGURATIONS**
- 5.1 Addition of admin mobile number**
- a. Send SMS A1+ - From Admin mobile phone to MCON SIM number
b. MCON Stores Admin mobile number and give acknowledgments through SMS.
Note: Admin A1 have all rights to change setting and modify other users.
- 5.2 Addition of other user mobile number**
- a. Send SMS A2+ 91 user mobile number *# to MCON from A1 mobile phone
b. Example: A2+91962374576*#
c. MCON stores A2 mobile number and sends confirmation SMS to A1 & A2.

- 6 CONFIGURATION STEPS FOR MOTOR STARTER**
- 6.1 Motor ON/OFF by**
- | COMMAND | DESCRIPTION |
|---------|--------------------|
| ON | To START the Motor |
| OFF | To STOP the Motor |
- 6.1.2 MISSED CALL MODE**
If the registered user calls the mcon SIM number it will reject the call at 4 to 5 rings and switch ON the Motor.
If Motor is already running, Device will reject the call in 2 rings and switch OFF the Motor and send the reply SMS.
Note: Disable IVRS mode before go to missed call mode (refer 6.1.3)
- 6.1.3 IVRS MODE**
If the registered user call the device number it will attend the call and ask to press keys to control the Motor.
User can Enable/Disable this mode by send IVRS/IVRS command through SMS.
Note: In default the IVRS mode was enabled.

- 6.4 Timer mode**
- 6.4.1 AUTO**
Motor status will remain the same after power back as before power off.
- | COMMAND | DESCRIPTION |
|---------|--------------------------------|
| LAUTO | To Enable AUTO mode |
| DAUTO | To disable AUTO mode (default) |
- 6.4.2 DAILY RUN TIME**
- a. This setting helps to start motor in real time with running hours.
b. Motor ON time and run time notifications will be sent to the User through SMS/GPRS/IVRS
- | COMMAND | DESCRIPTION |
|-----------------|---------------------------------|
| ONT 00:00 10:00 | 00:00 Start time (Ex: 12:30:00) |
| 10:00 | 10:00 End time (Ex: 12:30:00) |
| 10:00 | To Enable ONT timer mode |
| DNONT | To Disable ONT timer (Default) |

- Note: If you want to add more user:
For 3rd User send SMS A3+91 <3rd user mobile number > *#
For 4th User send SMS A4+91 <4th user mobile number > *#
For 5th User send SMS A5+91 <5th user mobile number > *#
For 6th User send SMS A6+91 <6th user mobile number > *#
For 7th User send SMS A7+91 <7th user mobile number > *#
For 8th User send SMS A8+91 <8th user mobile number > *#
Note: A1 to A5 user only receive the SMS.
- 5.3 Deletion of user mobile number**
- a. Send SMS AX- to MCON mobile number
b. MCON delete's AX mobile number and sends confirmation SMS
- | COMMAND | DESCRIPTION |
|---------|------------------------------------|
| AX | Delete ADMIN X |
| UX | To delete user number |
| ID | To know the Registered User Number |

- 6.1.4 SMART PHONE**
User can control & monitor the motor through Android & IOS application. To download applications refer QR at the end of the User manual.
- 6.1.5 WEB CONTROL**
User can control & monitor the Motor through the Website
URL: www.mobitechwireless.com
- 6.2 Motor status**
- a. To know the Live status of Motor send *# to MCON number
b. Live status can be monitored through application & website.
- 6.3 Current date and time**
- | COMMAND | DESCRIPTION |
|---------|---|
| ET | To know the current date and time |
| TS | To change the device date and time (Ex: 12:30:00) |

- 6.4.3 DEMAND RUN TIME**
- a. This setting helps to start motor immediately with running hours.
b. Runtime Notification will be sent to the User through SMS/ GPRS/IVRS
- | COMMAND | DESCRIPTION |
|-----------------|---------------------------------|
| ONT 00:00 10:00 | 00:00 Start time (Ex: 12:30:00) |
| 10:00 | 10:00 End time (Ex: 12:30:00) |
| 10:00 | To Enable ONT timer mode |
| DNONT | To Disable ONT timer (Default) |
- 6.4.4 SCHEDULE TIME**
- a. This setting helps to start motor with scheduled time in 10 different timers
Note: Motor will be ON & OFF according to Real time of schedule depends on power availability.
- | COMMAND | DESCRIPTION |
|----------------------|---------------------------------|
| SCHEDULE 00:00 10:00 | 00:00 Start time (Ex: 12:30:00) |
| 10:00 | 10:00 End time (Ex: 12:30:00) |
| 10:00 | To Enable SCHEDULE TIMER mode |
| DN | To Disable SCHEDULE TIMER mode |

- 6.4.5 CYCLIC TIME**
- a. This setting helps to start motor in cyclic timer mode.
b. Cyclic ON and OFF time notification will be sent to the user through SMS/ Web/ Application.
- | COMMAND | DESCRIPTION |
|-----------------|--|
| CYC 00:00 10:00 | To set RUN time & OFF time (Ex: CYC 00:10 10:00) |
| CCYC | To Enable the CYCLIC timer |
| DCYC | To Disable the CYCLIC timer (Default) |

- 8 CONFIGURATION STEPS FOR DIFFERENT TYPES OF STARTER**
- 8.1 CONFIGURATION STEPS FOR THREE PHASE THREE BUTTON OIL STARTER**
1. Do wiring in THREE BUTTON OIL STARTER as per diagram
 2. Send SMS ESD to MCON mobile number
 3. MCON enables star delta mode and sends SMS
 4. To increase the delay time send SMS SDL as as
 5. To Disable star delta conversion, send SMS DSD

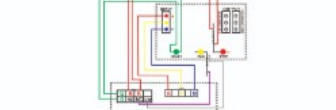
- 8.3 STEPS FOR SINGLE PHASE DOL TYPE MOTOR STARTER** (with starting condenser)
1. Do wiring in DOL type starter as per diagram
 2. Send SMS ESP to MCON mobile number
 3. MCON enables single phase mode and sends SMS
 4. If starting condenser wants to hold for 3 seconds and off relay wants to hold for 4 seconds send SMS SCL 03 04

- 6.4.6 MISSED CALL RUN TIME**
- a. ON /OFF the Motor by missed calls with User defined run time
- | COMMAND | DESCRIPTION |
|-----------------|---|
| MRT 00:00 10:00 | To set the missed call run time (Ex: MRT 00:10 10:00) |
| EMRT | Enable missed call TIMER mode |
| DNMRT | Disable missed call TIMER mode (Default) |

- 8.2 CONFIGURATION STEPS FOR SINGLE PHASE MCB TYPE MOTOR STARTER**
1. Do wiring in MCB as per diagram
 2. Send SMS ESP to MCON mobile number
 3. MCON enables single phase mode and sends SMS
 4. Send SMS ENRRLY to MCON mobile number to switch held in a relay permanently.

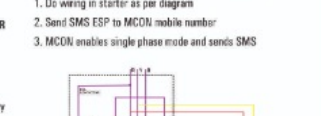
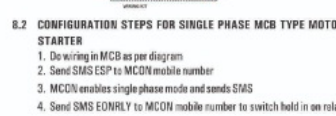


- 7 CONFIGURATION STEPS FOR MOTOR PROTECTION**
- 7.1 DRY RUN & OVER LOAD**
- a. MCON will Switch OFF the motor automatically if motor runs out of water.
b. It can be done by Fixing CT coils in R,Y,B phases.
c. If the running current value decreases below the set level or increases above the set level motor MCON will off the motor automatically



- 8.4 CONFIGURATION STEPS FOR SINGLE PHASE DOL TYPE MOTOR STARTER** (without starting condenser)
1. Do wiring in starter as per diagram
 2. Send SMS ESP to MCON mobile number
 3. MCON enables single phase mode and sends SMS

- d. To set the Dry run sensing delay in seconds**
- | COMMAND | DESCRIPTION |
|---------|--|
| DR 00 | To set dry run sense delay in seconds (Default 15) |



- e. To set the overload sensing delay in seconds**
- | COMMAND | DESCRIPTION |
|---------|--|
| OL 00 | To set Overload sense delay in seconds |



- Note:** To disable single phase mode send SMS DSP

- 7.1.1 DRY RUN RESUME**
The Motor will start automatically after the set level of dry run resume delay
- | COMMAND | DESCRIPTION |
|-----------|--|
| DRD 00 00 | To set Dry run RESUME time (Ex: DRD 00 00) |
| ENDR | Enable Dry run RESUME time mode |
| DNDR | Disable Dry run RESUME time mode |

- Note:** To disable single phase mode send sms DSP.
To disable on relay send SMS DNRLY.

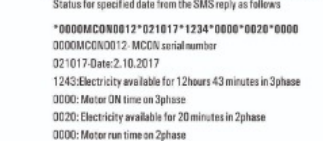
- 8.5 CONFIGURATION STEPS FOR STAR DELTA TIMER RELAY**
This option can be used for star delta starter
- a. Send SMS ESD to MCON Mobile number
 - b. MCON Enables Star delta conversion and confirm through SMS

- c. To increase the delay time send SMS SCL as as
d. To Disable star delta conversion, send SMS DSD
- | SMS as as | STARTER DELAY |
|-----------------|-------------------------------|
| (Ex: SCL 15 15) | ONRELAY & OFFRELAY |
| (Ex: SCL 15 15) | Hold seconds=SDL sense offset |

- 10.3 LOG information**
- It gives Power availability time and Motor running time
 - If you want to fetch previous day report send SMS PLOG
 - Send SMS CLOG to know the present day report
 - User can also obtain both electricity available status and motor ON Status for specified date from the SMS reply as follows

- 10.7 Add Field name**
If you wish to add Field name in SMS, user send SMS LOC xxxxxxxx#
Example: If you want add field name as MCON FARM send SMS LOC MCONFARM# from A1 mobile number to MCON mobile number.
NOTE: Maximum 10 characters only

- 9 CONFIGURATION STEPS FOR STARTER ROOM LIGHT BULB CONNECTION**
- An external light bulb load of 40Watts can be driven through it.
 - Do wiring according to wiring diagram



- 10.8 Tank over flow controller**
- Control the Sump and Over-head Tank level through interfacing of floats
 - Send SMS ETC 1 to MCON mobile number, it enable this features and send SMS confirmation
 - To disable this features send SMS DTC to MCON mobile number.
- Manual mode:** Send SMS ETC 1 to MCON mobile number for enable manual mode (It gives only alert for tank & sump level through SMS)
- Semiauto mode:** Send SMS ETC 2 to MCON mobile number for enable semiauto mode. (It only OFF the motor while the sump is empty & tank is full)
- Auto mode:** Send SMS ETC 3 to MCON mobile number for enable Auto mode.
0N 00:00:00 the motor while sump is empty/full & tank is full (empty)

- c. If light want to be ON at 6:00 pm and OFF 6:00am send SMS EL 00 00 00 00 to MCON mobile number (Ex: EL 00 00 00 00)**
- d. MCON stores time and confirm through SMS**
- Send SMS DL to disable light

- 10.4 Power resume alert**
- It gives CALL SMS after power resumes
 - Gives information about the motor status, phase voltage or phase fail and Motor current.
 - It also gives information about the faulty phase
- | EP/PCA | Enable POWER BACK call alert |
|---|-------------------------------|
| DP/PCA <th>Disable POWER BACK call alert</th> | Disable POWER BACK call alert |
| EPB | Enable POWER BACK Alert SMS |
| DPB | Disable POWER BACK Alert SMS |

- 10.9 Restart**
If you want to restart the MCON call phone motor starter send SMS RESET from A1 mobile number.
Note: Once this command is received by MCON call phone motor starter, it will restart and send Power back SMS.

- 10 VALUE ADDED FEATURES**
- 10.1 Control & Monitor through smart phone**
- Android control & monitoring
To download Android application for MCON call phone motor starter. Check: www.mobitechwireless.in or Google play store.
 - IOS control & monitoring
To download IOS application for MCON call phone motor starter. Check: www.mobitechwireless.in or iPhone app stores

- 10.2 Low and high voltage alert**
Gives SMS alert when voltage level increase above or decreases below the set level.
- | COMMAND | DESCRIPTION |
|-------------|---|
| LHV 400 | To set low & High Voltage Level |
| 400 410 500 | |
| ELHVF | To Enable Low & High Voltage Functions |
| DLHVF | To Disable Low & High Voltage Functions |

- 10.5 Firmware update**
We can update the program through Air (GPRS).
- 10.6 Enable and disable SMS**
- Send SMS DSMS from A1 mobile phone to MCON mobile number it disable & confirm through SMS
 - Send SMS ESMS from A1 mobile phone to MCON mobile number it enable & confirm through SMS

- 10.10 Control & Monitor through smart phone**
- Android control & monitoring
To download Android application for MCON call phone motor starter. Check: www.mobitechwireless.in or Google play store.
 - IOS control & monitoring
To download IOS application for MCON call phone motor starter. Check: www.mobitechwireless.in or iPhone app stores

- 10.5 Firmware update**
We can update the program through Air (GPRS).
- 10.6 Enable and disable SMS**
- Send SMS DSMS from A1 mobile phone to MCON mobile number it disable & confirm through SMS
 - Send SMS ESMS from A1 mobile phone to MCON mobile number it enable & confirm through SMS

APP LINK:

