



MV790 User Manual V1.0

Learn how to set up your new MiCODUS Tracker

1. Main Features



GPS+
GLONASS+LBS



Remotely Cut Off
/Resume Fuel



Historical Route
Playback



Realtime
Tracking



9-90V Wide
Working Voltage



Vibration
Alarm



Overspeed
Alarm



Tow Alarm



Power
Disconnect Alarm



Geo-fence



SOS
Panic Button



Engine On/
OFF Alarm



Voice Monitor

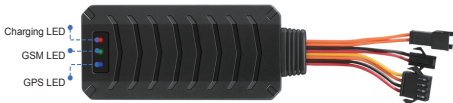
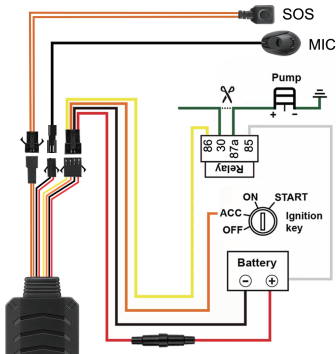


Lifetime Free
Tracking Platform

2.Specifications

Device Information	Model	MV790
	Weight	48.9g
	Dimensions	90mm(L) * 40mm(W) * 12mm(H)
	Backup Battery Working Time	1-2 hours
Working Parameters	Working Voltage	DC 9-90V
	Working Current	<30 mA
	Sleep Current	<15 uA
	Battery Capacity	3.7V 80mAh Lion Polymer battery
	Working Temperature	-20℃ - 75℃
Cellular Specifications	Working Humidity	10%-85%RH non-condensing
	Working Frequency	2G GSM/GPRS: 850/900/1800/1900MHz
	SIM Card	Nano SIM Card
GNSS Specifications	Cellular Antenna	Built-in
	Positioning Type	GPS+GLONASS+LBS
	GPS Antenna	Built-in
	Cold Start	≤32 Seconds
	Hot Start	≤1 Second
	Tracking sensitivity	-162 dBm
	GPS Channels	64
	Position Accuracy	5-10m

3. Wiring diagram



4. Activate Device

Install the SIM card via the correct direction as below:



LED	Event	State
POWER LED (RED)	Charging	Solid
	Charger has not been inserted	Dark
GSM LED (GREEN)	Searching for network	Solid
	Network has been registered	Flash every 1 second
GPS LED (Blue)	GPS is in fixing	Solid
	GPS has fixed	Flash every 1 second
ALL LED	Device is working but stopped more than 5min	ALL LED TURN OFF
	Device has not been turn on	
	Device ran out of battery	

Please get the exact correct APN name from local SIM card provider. Take the tracker to a good signal place for operation and configure the APN for it as below:

SMS Command Format	Reply	Example	Note
apn123456+space+apn name	apn ok	apn123456 cmnet	Please get the exact correct APN name from local SIM card provider. "cmnet" is just an example of APN name.
apnuser123456+space+apnuser	apnuser ok	apnuser123456 cmnet	If the SIM card operator doesn't have APN user name, then please ignore this configuration
apnpasswd123456+space+apnpassword	apnpasswd ok	apnpasswd123456 123	

Note: The APN information is very important, it must 100% correct to match with the sim card of the tracker, if you configured wrong APN, the tracker also will reply "SET APN ok" but it will can't get online!

5. Activate Device

GPS Main Unit MV790	x 1
Function Cable	x 1
Microphone Cable(Optional)	x 1
SOS Button Cable(Optional)	x 1
Relay	x 1
User Guide	x 1
Genuine Packing Box	x 1

6. Functions Explanation

Please follow with the quick user guide carefully!

a. Voice Monitor:

For example:

- * Set admin number by this sms command:
admin123456+space+mobile number with country code
- * Switch the tracker to voice monitor mode
by this sms command:***monitor123456***
- * Dial the sim number of the tracker from the admin
number, then the tracker will pick up the call automatically
and you will can remote monitor the voice around it.



b. Vibration Alert:

This vibration alert function just work under stationary status. How to use this function:

For example:

- * Set admin number by this sms command:
admin123456+space+mobile number with country code
- * Enable the device to enter into arm mode by this
sms command: ***111***
- * Configure the alarm ways by this sms command:
vibalm123456

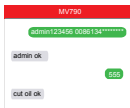


- * Keep the device under stationary status more than 5min to let it enter into sleep arm mode;
- * Vibrate the device then the tracker will send the vibration alarm messages

c. Cut Off Fuel/Resume Fuel

- * Set admin number by this sms command:
admin123456+space+mobile number with country code
- * Send this sms command from the admin number to cut off fuel: **555**

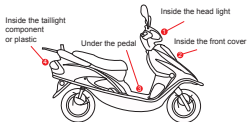
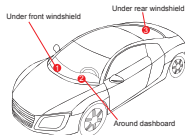
For example:



NOTE ⚠⚠⚠ :About the cut off fuel function, firstly please make sure the fuel circuit is connecting to main power. Secondly, it has 3 different performance, please read it carefully:

- * If the network signal and satellite signal both are available, when the equipment speed exceeds 20km/h, the fuel circuit will not be cut off immediately, it will cut off intermittently till the speed is below 20km/h, then just can be completely cut off.
- * In the tracker has network signal and but no satellite signal, the fuel circuit will be cut off intermittently, after 2, 3 minutes it will be cut off completely;
- * If the tracker stopped more than 5 minutes, the fuel circuit will be cut off immediately, and then connected, but if you vibrate the tracker or vibrate the tracker the fuel circuit will be cut off immediately;

7. Installation Recommendation



- 1) The device should face up to the sky.
- 2) Metal thermal barrier or heating layer of the windshield affects the signal.

8. Troubleshooting

Type	Use
Unable to connect to tracking platform	Check the APN and settings. Check whether the data service of SIM card is enabled. Check the balance of SIM card.
Tracker shows offline	Check whether external power is still connected. Check if the vehicle entered network blind area. Check the balance of SIM card.
Unable to locate	Make sure the top side facing upward without metallic things shielded. Make sure it's not in area with no satellite coverage.
Location drift	In area with poor GNSS signal (tall building around or basement), drifting may happen. Check whether vibration happens around to trigger the accelerator.
No command reply	Make sure command format is correct. Vehicle may be in network blind area. Make sure SIM card is well inserted and has SMS servi.

9. Full SMS Commands List

Functions	Command Format	Explanation
Set Admin Number	admin123456+space+mobile number with country code	Please add your country code as prefix of the admin number
Back to Factory Setting	begin123456	After sent this sms command, all your configuration will be cleared and the device will get back to factory default settings
Password Change	password+old password+space+new password	The password just can be 6 digitals
Restart	rst	After sent this sms command, the configurations will be saved and the device will restart
APN	apn+123456+apn content	Please get the exact correct APN name from the SIM card provider of the tracker, "cmnet" is China Mobile's APN name
	apnuser+123456+space+content	If the SIM card operator doesn't have APN user, then please ignore this configuration
	apnuser+123456+space+content	If the SIM card operator doesn't have APN password, then please ignore this configuration

Functions	Command Format	Explanation
IP&Port	adminip+123456+space+ip +space+port	Micodus tracking platform's IP: 47.254.77.28; Port: 7700
Domain	SZCS,123456,DOMAIN=d.micodus. net:7700	MICODUS server domain: d.micodus.net, Port: 7700
Google Maps Link	G123456# or where	V:A: Indicates the device has GPS signal; V:V: Indicates the device doesn't have GPS signal; 2019-11-26 10:17:01: Date and Time; S: 000km/h: Speed of the tracker Bat:5: Battery level of the backup battery of the tracker, it has 6 levels: "6" means 100% , "5" 80%, "4" means 60%, "3" means 40%, "2" means 20%, "1" means 10%; ACC: off: The status of the car engine; 7201000006: ID number of the device; S26: GSM signal is 26 G06: GPS signal is 06 p:46000, l:13152, c:63162: p,l,c this 3 parameters means the LBS code
Data Upload Frequency	upload123456+space+time	Time interval scope: 10-180s
Time Zone	timezone+123456+space+GMT No.	If east time zone, needn't input sign "+", for example, if the time zone is East 8, then the sms command should be sent like this: timezone123456 8
Parameter Query	param1	firmware version. ID. IP. port. domain. APN
	param2	admin number, SOS number,move distance, overspeed, auto arm time, auto disarm time, alarm interval
Status	status	BAT:10 GPRS: GSM: GPS:A/V ACC:on/off oil:on/off power:on/off
Arm	111 or SF	
Disarm	000 or CF	
Cut Off Fuel	555	
Resume Fuel	666	
Movement Alarm	move+alarm distance	Movement alarm distance scope: 100-1000m
Overspeed Alarm	speed+123456+space+speed limit	Overpeed alarm speed scope: 20-150km/h
IMEI Checking	imei+123456	

Functions	Command Format	Explanation
Sleep Mode	sleep123456 time	If device keep stationary more than 5 minutes the device will enter into sleep mode automatically, sms commands and call can wake up it
	sleep123456 shock	If device keep stationary more than 5 minutes the device will enter into sleep mode automatically, vibration, sms commands and call can wake up it
	sleep123456 off	Cancel sleep mode
Vibrate Alarm	vibx,y	x=1-3(1: SMS alarm, 2: Call alarm, 3: SMS first then Call); y=1-9,1 is the most sensitive
	vibcall+123456	Vibrate call alarm set ok (If device keep stationary more than 5 minutes the device will enter into sleep mode automatically, vibration, sms commands and call can wake up it)
	vibalm+123456	Vibrate sms alarm set ok(If device keep stationary more than 5 minutes the device will enter into sleep mode automatically, vibration, sms commands and call can wake up it)
Tow Alarm	towA,B	A: 1-4, 1: SMS alarm, 2: Call alarm, 3: SMS+Call, 4: Platform alarm; B: Distance (500-10000m)
Auto Arm By ACC	acclt,time	Time scope: 5-1200 seconds
Engine On/Off Alarm	autorep123456,AB	A=0 (Engine ON: No Alarm); A=1 (Engine ON: SMS only); A=2 (Engine ON:Platform only); A=3 (Engine ON: SMS+Platform) B=0 (Engine OFF: No Alarm); B=1 (Engine OFF: SMS only); B=2 (Engine OFF: Platform only); B=3 (Engine OFF: SMS+Platform)
Voice Monitor	monitor123456	Note: This command is used to switch the tracker to monitor mode, then dial the sim number of the tracker from the admin number, the device will pick up call automatically.
Track Mode	tracker123456	Note: This command is used to switch the tracker back to track mode after voice monitor

10. Any Questions?

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Skype: MiCODUS

11. Download the APP

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