

Autostart AS705S

Automatic Engine/Generator Controller



- **Automatic or manual engine and generator control**
- **LED indication of status/faults**
- **Custom LEDs and labelling**
- **Programmable timers, inputs, outputs and control options**

Description

The AS705S provides fully automatic control, fault monitoring and shutdown of a standby generator, pump or engine driven application.

Features include:-

- Automatic or manual control, keyswitch or rotary switch selectable
- Status and fault indication by 17 LEDs. 12 have preset labelling, 5 may be custom programmed and labelled.
- Wide range power supply, 5 to 40 VDC.
- Automatic, timed control of generator contactor.
- Electrical connection by two-part, screw terminal blocks.
- Tamper proof settings. Timers, I/O and control options are set using a PC serial link and free of charge software.
- Compact, front of panel mounting

Application

The Autostart series may be used in any unmanned application where automatic engine starting and stopping is required. The AS705's control, measurement and display features allow it to be used in place of multiple control units, trip relays and indicating gauges, and at a fraction of the cost.

For further details, please contact your Murphy representative, or visit www.fwmurphy.co.uk/as7xx

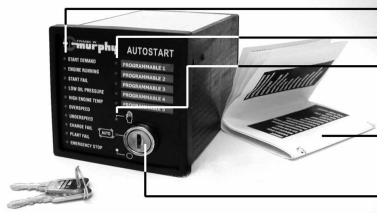
Warranty

A two year limited warranty on materials and workmanship is given with this Murphy product. Details are available on request and are packed with each unit.

Product Specification

Power supply:	
Operating voltage: steady state range	5 – 40 V DC continuous,
crank brown-out	to 0 V for <= 100 mSec
Current consumption	typically 150 mA
Inputs:	
DC inputs (inputs 1 - 5, rem. start):	
positive input voltage range	80% to 100% of positive DC
negative input voltage range	-1V to +2V w.r.t. negative DC
Generator AC input:	
operating voltage range	90 – 300 V AC rms single phase
frequency measurement range	0 – 99 Hz.
Magnetic pickup:	
operating voltage range	7 – 80 V AC rms
frequency measurement range	0 – 10 kHz
Outputs:	<i>(all ratings for resistive load)</i>
Start and fuel relays	positive DC (switched relay) 16A max. @ 24 V DC
Programmable outputs 1 – 3	negative DC (semiconductor) 250mA max. @ 33 V DC
Programmable output 4	negative DC (switched relay) 5A max. @ 24 V DC
Programmable output 5 (default setting: common alarm)	positive DC (switched relay) 5A max. @ 24 V DC
Programmable output 6 (default setting: gen. contactor)	volt free SPNO relay 5A max. @ 240 V AC
Auto & Manual outputs	positive DC (switch), 250 mA max.
Off/reset output	negative DC, 250 mA max.
General:	
Overall dimensions (W x H x D)	96 x 96 x 162 mm
Panel cut-out size	DIN standard 92 x 92 mm
Weight	approx. 650 g
Operating ambient temperature	-10 to +55 °C

Front Facia



LED indicators:-

- Preset x 10
- Programmable x 5
- Auto mode x 1
- Manual mode x 1

Custom label sheet

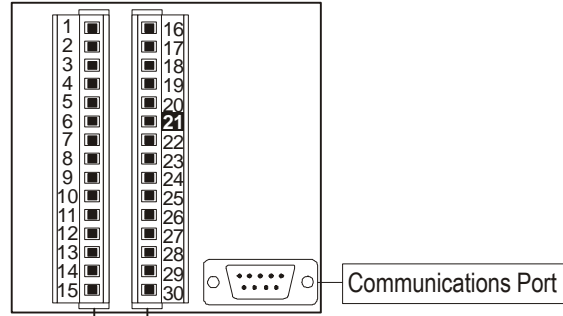
3 position operating mode switch (keyswitch shown):-

○ Off/reset

Auto

Manual

Rear Facia and Electrical Connection



1	-ve DC supply ← 5 - 40 VDC	16	Input 1: low oil pressure
2	Charge fail input	17	Input 2: high engine temp.
3	+ ve DC power supply	18	Input 3: programmable
4	+ ve DC (relays)/Emerg. stop	19	Input 4: programmable
5	Magnetic pickup input	20	Input 5: programmable
6	Output 1: - ve DC	21	Index Pin
7	Output 2: 250 mA max	22	Fuel output +ve DC
8	A800 enable output	23	Starter output 16 A max.
9	Output 3: - ve, < 250mA	24	Output 5 (alarm): + ve, < 5A
10	Output 4: -ve DC, 5 A max.	25	NO Output 6 (gen. contctr)
11	Remote start/mains fail input	26	CO volt free, 5 A max.
12	- No connection -	27	
13	Off output: - ve, < 250mA	28	Man. Start Man. Stop - ve
14	Manual output + ve DC	29	Live Generator AC
15	Auto output 250mA max.	30	Neutral 300 VAC max.

How to order

Stock code Model / Description

- 76.70.0065 AS705SKD, keyswitch, 230VAC
- 76.70.0037 AS705SRD, rotary switch, 230VAC
- 76.70.0011 AS705SKC, keyswitch, 110VAC
- 76.70.0219 AS705SRC, rotary switch, 110VAC

Programming accessories:-

- 76.70.0018 AS7CA, 9 to 9 way local comms lead
- 76.70.0019 AS7CB, 9 to 25 way local comms lead
- 76.70.0020 AS7CC, local comms interface
- 76.70.0203 AS7CK, PC program and monitor software for AS7xx series.

Also available for free of charge download from: www.fwmurphy.co.uk/download

Program options:

The AS705 is programmed using PC software model AS7CK, available for free of charge website download. During setup, AS705 and PC are connected by local serial link (using the accessories listed left). Over 50 programmable functions allow custom set-up for your application:-

Timers: start delay, preheat, crank, crank rest, no. of start attempts, alarm override, engine warmup, speed signal, (mains AC) restoration, cooldown, (fuel) energised to stop.

Inputs: input 1 - 5 configuration (open/close/+ve/-ve); input 3 - 5 actions (shutdown, warning, indication, load release, lamp test, manual restore, test, alarm mute, load reset)

Outputs: 6 outputs, each set for one of 40 signalling and control options, e.g. preheat, energised to stop fuel, engine running, muteable alarm, individual faults, etc.

Generator: trip Hz/RPM levels and response for crank release, underspeed, overspeed, speed overshoot on start.

DC: high and low battery voltage warning, charge fail settings (charge alternator WL or battery charger), WL crank release.

LEDs: allows programming of the LED indicators (including the 5 with custom message windows).

See document mi5265 for a full list of program options. Software AS7CK also features real time monitoring and display of engine parameters - see document mi5266 for full details.



FWMurphy

PO Box 470248
Tulsa, Oklahoma 74147, USA
tel: (918) 627 3550
fax: (918) 664 6146
email: sales@fwmurphy.com
web: www.fwmurphy.com



CONTROL SYSTEMS AND SERVICES DIVISION
PO Box 1819, Rosenberg, Texas 77471, USA
tel: (281) 342 0297
fax: (281) 341 6006
email: sales@fwmurphy.com

MURPHY DE MEXICO S.A. DE C.V.
Blvd. Antonio Rocha Cordero 300, Fracci3n del
Aguaje San Luis Potosi, S.L.P. M3xico 78384
tel: + 52 48 206264
fax: + 52 48 206336
email: ventas@mexico.fwmurphy.com
web: www.murphymex.com.mx

FRANK W. MURPHY LTD.
Church Rd, Laverstock, Salisbury, SP1 1QZ, UK
tel: +44 1722 410055
fax: +44 1722 410088
email: sales@fwmurphy.co.uk
web: www.fwmurphy.co.uk

For service in French:-
Pour service en fran3ais:-
tel: +44 1722 410697
fax: +44 1722 410088
email: france@fwmurphy.co.uk
web: www.fwmurphy.co.uk/francais.htm

MURPHY SWITCH OF CALIFORNIA
41343 12th Street West,
Palmdale, CA 93551-1442, USA
tel: (661) 272 4700
fax: (661) 947 7570
email: sales@murphyswitch.com
web: www.murphyswitch.com

MACQUARRIE CORPORATION
1620 Hume Highway,
Campbellfield, Victoria 3061, Australia
tel: +61 3 9358 5555
fax: +61 3 9358 5558
email: murphy@macquarrie.com.au

In order to consistently bring you the highest quality, full featured products, we reserve the right to change our specifications and designs at any time.