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SYSDYNE MIXING REVOLUTION COUNTERS MRC-PRO

MRC-PRO is the replacement of Sysdyne's two old modules—110S and MRC-2000. The three modules work the same. They can use the same installation harness and reset cable. MRC-PRO uses AC reset. Please see attached brochures for details of each module. MRC-PRO can also apply to proximity sensor. Please ask for a separate instruction manual for this application.

MRC-PRO is designed with special features that meet the D.O.T. requirement of many States. All the components are housed in an enclosure. Connections are made through factory pre-assembled cable. The COUNTER is to be powered by the 12 volt battery and the revolution count is triggered by an external limit switch. Please see attached sheet for detailed connection instruction. Both the input from the battery and the input from the limit switch are protected by fuses. Electronic circuits are incorporated into the COUNTER to prevent unauthorized tampering.

The COUNTER provides two 3-digit numeric displays, one for the "Total Revolution (Total)" and the other for the "Mix Revolution (Mix)". The "Total" displays the number of times the external limited switch is triggered. The "Mix" displays the number of times the external limit switch is triggered at a certain frequency (equivalent to the speed at which the mixing drum is turning, typically 6 to 18 RPM for proper mixing of concrete).

The external limit switch, which services as the counting triggering device, should be mounted on the mixer truck close to the mixing drum. A bracket may be welded on the mixing drum to trip the limit switch triggering arm every time the mixing drum makes one rotation.

When the COUNTER is powered on, it will register an "888" reading or "RESET COUNTER (RES)" on the display. The counter will stay in this inactive mode until it is reset by a special "RESET" cable.

RESET AND RESET CABLE

The reset plug of AC reset cable is a square 6 pin female connector. To reset the COUNTER, connect the power cord of the reset cable to 110 AC power source and then insert the reset plug to the COUNTER reset socket then remove the reset plug. When this is done, both the "Total" and the "Mix" displays are reset to "0". Once the COUNTER is reset, it becomes active and will register all limit switch triggering continuously.

INSTALLATION HARNESS CONNECTIONS

2-CONDUCTOR CABLE TO BATTERY:

- WHITE conductor to BATTERY +(Positive)
- BLACK conductor to BATTERY -(Negative)

These connections must be as close to the battery as possible. It does not matter if the truck chassis is connected to the battery "positive" or "negative", as long as all the connections are properly wired and none are shorted to each other.



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3-conductor cable with shield to LIMIT SWITCH:

Connect Black Wire to Limit Switch normaly open terminal (terminal#13), Connect White Wire to Limit Switch SHIELD (terminal#14). Bare Wire to Chassis. Red wire is not used for Limit Switch application. Please refer the attached drawing for connection guidance.

* The terminal numbers refer to Telemecanique Limit Switch body. The terminal numbers may vary with limit switches of other brands.

CAUTION!! CAUTION!! CAUTION!!

DO NOT INSTALL UNIT FACING DOWN. WATER COULD COLLECT IN THE ENCLOSURE COVER CAUSING EXTENSIVE DAMAGES.

DO NOT install the counter where it is exposed to continuous direct sunlight.

DO NOT use any other device except the one supplied by Sysdyne to reset the counter.

Should cable clamps be used to hold down any cable, it is essential that the clamps are not overly tightened that they cut into the cable.

TRUCK WITH “POSITIVE GROUND”

Touching any one of the three wires (RED, BLACK or WHITE) from the LIMIT SWITCH to the truck chassis CAN cause a short to the counter and blow an internal protecting fuse. If the fuse is blown, the counter WILL NOT register any revolution count. MAKE SURE THAT THERE IS NO MORE SHORT before replacing the 1 Amp which is mounted on fuse clips inside the counter.

WARNING!!!!

ENCLOSURE IS NOT WATER PROOF.

DO NOT SUBMERGE IN OR HOSE WITH WATER OR LIQUID.

* Please see a separate installation instruction for application of proximity sensor.