

MITCHELLOCK

TYPES 16-B, 16-S, 17-A, 17-S

DESCRIPTION:—Mitchellock ignition switches incorporate a change in design from the Electrolock types (previous section) in that the primary lead from the switch to the coil is armored and the breaker lead from the coil is not taken through the switch but is connected directly to the distributor (see wiring illustrations). The Types 17-A and 17-S do not have this armored cable. The location of the terminals on the lock case differs with the various types (see illustration). Mitchellocks designed for use with Startix automatic starting switch have two 'On' positions, one for use in timing with ignition connected but Startix inoperative, and the second position with both ignition and Startix operative. This second position is the regular operating position of the switch. Details on each type switch are given on the car data sheet ('On' positions may be left and right or both to the right of the 'Off' position).

SERVICING:—To Disassemble Mitchellocks—Disconnect all leads and remove lock from mounting on dash. Remove stakings at rear of lock case which retain lock case cover. Remove all terminal screws and bushings. Pull lock case cover and contact base assembly out of lock case. Rotary contact assembly and adapter may then be remove. See special directions below for removal of each type lock cylinder from lock case.

To Assemble Mitchellocks:—Insert adapter in lock case making certain that tongue and pin on end of lock cylinder engage groove and slot on end of adapter. Insert rotary contact assembly and see that tongue and small pin on end of adapter enter groove and pin hole in end of rotor. Install contact base assembly, insert terminal screws (with bushings in place) through holes in lock case and screw firmly in place in terminal lugs on contact base assembly. See that ground strip on contact base assembly makes good contact with lock case, install lock case cover making certain that groove in cover engages projection within case, stake case securely.

Briggs & Stratton Lock Cylinders on Types 16-B, 16-S. To service these lock cylinders, first remove lock from mounting, disconnect ammeter lead and turn key to extreme right hand position, insert a 1/16 inch diameter pin as far as possible in hole in side of lock case, pull lightly on key until lock cylinder can be withdrawn.

Yale & Towne Lock Cylinders on Types 16-S, 17-S. These lock cylinders are removed for servicing in the same manner as the Briggs & Stratton lock cylinders used on the Types 16-B, 16-S. Follow directions in paragraph above.

Hurd Lock Cylinders on Type 16-S#5174. To service these lock cylinders, first remove lock from mounting, disconnect ammeter lead, turn key to extreme right hand position, press down on retaining pin (which projects into the small hole located at the top of the threaded front end of the lock case) with a small pointed tool until lock cylinder can be withdrawn.

Independent Lock Cylinders on Type 16-S—#5172, 17-A—#5159. To service these lock cylinders, disconnect ammeter lead, turn key to extreme right hand position, withdraw key, insert special 'extracting key', press key in as far as possible until lock cylinder can be withdrawn. These special 'extracting keys' will be sold only to authorized service stations and the number of the lock for which they are to be used must be specified (see list below).

TROUBLE SHOOTING:—Test circuits through the switch, using a lamp and test points, for each switch position to determine if switch is operating correctly. If switch appears to be defective, disassemble as directed above and examine. It should be remembered that Startix terminal is connected to feed terminal only with the switch key in the 'running' position and is not connected with the switch in the 'timing' position.

MITCHELLOCK

TYPES 24-B, 24-R, 24-S

NOTE:—Mitchellocks differ from 'Electrolock' types also manufactured by the Mitchell Specialty Company in that the switch is designed to be connected to the ignition coil by armored cable (rather than to the distributor as on Electrolocks), so that the coil lead is protected (rather than the breaker lead from the coil to the distributor). When Mitchellocks are used, the breaker lead is run directly from the coil to the distributor terminal and is not taken through the switch. Switch types numbered from 1 to 15 are Electrolocks, types above 15 are Mitchellocks.

DESCRIPTION:—Similar in design to previous type Mitchellocks except that terminals located on lock case cover (see illustration). Furnished in three types as follows:

'B' Type (24-B)—Has extra terminal for gasoline gauge or other accessory connection. Accessory terminal live only with switch 'on'.

'R' Type (24-R)—Same as above but switch has two 'on' positions; one for regular running with ignition on, and a second position with accessory terminal live but ignition off. This position may be used for gasoline gauge reading with engine not running or for radio control with car parked.

'S' Type (24-S)—Has additional terminal for Startix or other automatic starting device connection. Switch has two 'on' positions; one for regular running with Startix operative, and a second position with ignition on but Startix inoperative. This position used when checking timing or whenever automatic cranking not desired.

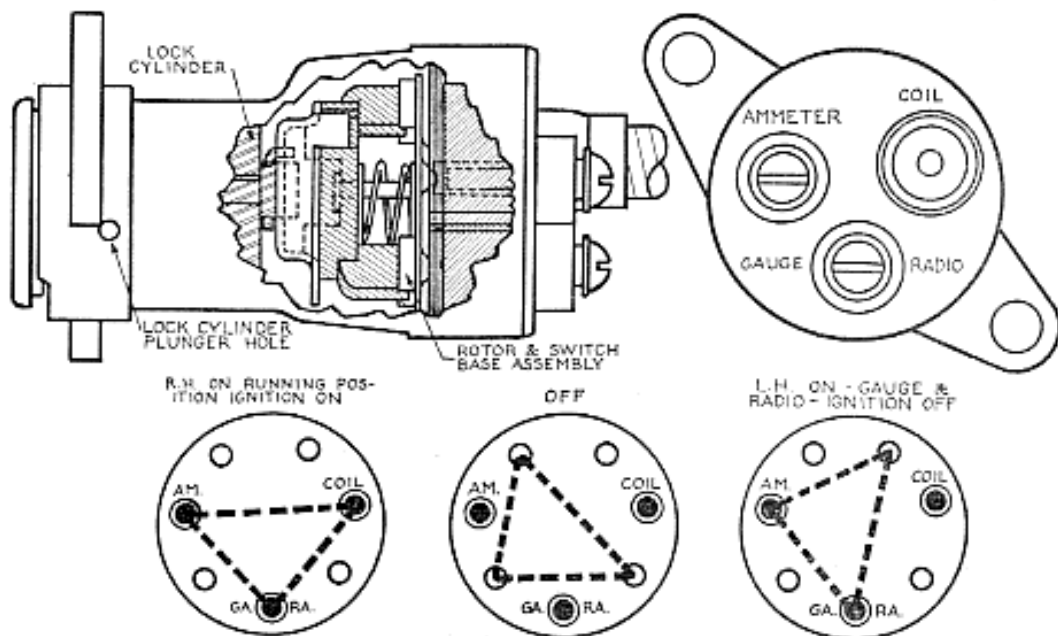
SERVICING:—To disassemble Mitchellock—With switch removed from dash and all leads disconnected, remove stakings on lock case retaining lock case cover, pull cover and entire rotor and switch base assembly out of case. Replace rotor and switch base assembly as a unit. This unit (Part No. 6420) normally stocked with sufficient excess current wire length so that wire can be cut to desired length for any installation.

To Assemble Mitchellock—See that prong on lock cylinder enters slot in face of adapter on forward end of rotor and switch base assembly, and that ridge in lock case registers with slot on side of switch base, push assembly into lock case, replace cover, stake securely.

Lock Cylinder:—To remove ignition lock, turn key to extreme right hand position (B & S locks only), insert 1/16" diameter pin in hole in side of lock case directly behind head, depress lock cylinder spring retainer, pull lock cylinder out.

TROUBLE SHOOTING:—Test circuits through switch with lamp and test points. See description above for terminals which should be 'live' with switch key in

each position. If switch circuits are completed correctly and ignition still unsatisfactory, remove ignition coil base (cable connection) by taking out three screws. This will expose coil terminal in base. Check circuit through switch and coil lead to this terminal. If circuit tests OK, disconnect coil, test coil and replace if necessary. If tests indicate switch defective, disassemble as directed in Servicing below.



MITCHELLOCK APPLICATION LIST

TYPES USED AS ORIGINAL EQUIPMENT ON ALL CAR MODELS.

Car Model and Year	Type	Lock Assembly	Switch and Cable	Lock Cylinder
Chrysler, C6, CZ Coupe ('35)	24-B	6674	6675	—
Chrysler, C6, CZ (Radio)	24-R	6498	6672	—
Chrysler, C6, CZ Sedan ('35)	24-B	6676	6677	—
Chrysler, C6, CZ (Radio)	24-R	6499	6673	—
Chrysler, C1, C3 Exp. (1935)	24-R	6497	6671	—
Chrysler, C7, C8 (1936)	24-B	6519	6743	6286
Chrysler, C7, C8 (Convertible)	24-B	6748	6749	6286
Chrysler, C9, C10, C11 (1936)	24-B	6744	6745	6286
Chrysler, Royal C16, Imp. C14 ('37)	24-B	7055	7056	7075
Chrysler, Cust. Imp. C15 (1937)	24-B	7057	7058	7075
Chrysler, Airflow C17 (1937)	24-B	6744	6745	6286
Continental, 40 ('33), 41 ('34)	16-S	5174	6678	—
Continental, Flyer 60 (1933)	16-S	5174	6678	—
Cord, 810 (1936)	16-S	6679	6680	6622
Cord, 812, Schgd. 812 (1937)	16-S	6679	6680	6622
DeSoto, Airstrm. SF (1935)	24-B	6505	6682	—
DeSoto, Airstrm. (Taxicab)	24-R	6520	6687	—
DeSoto, Airflw. SG (1935)	24-R	6503	6681	—
DeSoto, Airstrm. S1 (1936)	24-B	6518	6686	6286
DeSoto, Airstrm. (Conv.)	24-B	6746	6747	6286
DeSoto, Airflw. S2 (1936)	24-B	6688	6689	6286
DeSoto, S3 (1937)	24-B	7055	7056	7075
Dodge, DU, DV Coupe ('35)	24-R	6506	6690	—
Dodge, DU, DV Sedan ('35)	24-R	6507	6691	—
Dodge, D2 (1936)	24-R	6508	6697	—
Dodge, D5 (1937)	24-R	7061	7062	6286
Franklin, Olympie 18 ('33-'34)	17-S	4990 (A)	5248	—
Hudson, E Six (1933)	16-S	5173	6706	—
Hudson, GH Six (1935)	24-B	6509	6685	—
Hudson, HT, HU, HHU (1935)	24-B	6509	6685	—
Hudson, 63 Six (1936)	24-B	6696	6698	—
Hudson, 64, 65, 66, 67 (1936)	24-B	6696	6698	—
Hudson, 73 Six (1937)	24-B	7063	7064	6095
Hudson, 74, 75, 76, 77 (1937)	24-B	7063	7064	6095
Hupmobile, 321-K, ('33), 421, A ('34)	16-B	6699	5176	—
Hupmobile, 417W ('34), 517W ('35)	16-B	6701	5722	—
Hupmobile, 421J ('34), 521J ('35)	16-B	6700	5721	—
Hupmobile, 427T ('34), 527T ('35)	16-B	6700	5721	—
Hupmobile, 518D ('35), 618G ('36)	24-B	6702	6703	—

Car Model and Year	Type	Lock Assembly	Switch and Cable	Lock Cylinder
Hupmobile, 521O ('35), 621N ('36)	24-B	6704	6705	—
LaFayette, 3610 (1935-36)	24-B	6708	6709	6760
Nash, 1120, 1130 (1933)	16-S	5173	6706	—
Nash, 3540 (1935)	24-B	6510	6707	—
Nash, 3640 ('35), 3640A ('36)	24-B	6708	6709	6760
Packard, 905, 906 (1932)	16-S	5145	6710	—
Packard, 1001, 2, 3, 4 (1933)	16-S	5002	5102	—
Packard, 1005, 6 (1933)	16-S	5145	6710	—
Packard, 1107, 8 (1934)	16-S	5323	6741	—
Packard, 1108S (1934)	16-S	6666	6742	—
Packard, 1207 (1935)	16-S	5323	6741	—
Packard, 1208 (1935)	16-S	6666	6742	—
Packard, 120 LHD. (1935)	24-B	6511 (B)	6711	—
Packard, 120 LHD. (1935)	24-B	6513 (C)	6713	—
Packard, 120 RHD. (1935)	24-B	6512 (B)	6712	—
Packard, 120 RHD. (1935)	24-B	6514 (C)	6714	—
Packard, 120B LHD. (1936)	24-B	6513 (C)	6713	6760
Packard, 120B RHD. (1936)	24-B	6514 (C)	6714	6760
Packard, 115C Six (1937)	24-B	—	—	—
Packard, 120C (1937)	24-B	7065	7066	6760
Plymouth, PJ, PJ DeLuxe ('35)	24-R	6515	6715	—
Plymouth, PJ 7 Pass. Sedan ('35)	24-R	6516	6716	—
Plymouth, P1, P2 (1936)	24-R	6517	6717	6286
Plymouth, P3, P4 (1937)	24-R	7061	7062	6286
Reo, 1N Models (1933)	16-S	6721	6720	—
Reo, 2N Models ('33-'34)	16-S	6719	5171	—
Reo, S2, 3, 4, 5, 7 ('33-4-5)	16-S	6718	5170	—
Rolls Royce, 1934-35	17-S	5796 (A)	—	—
Studebaker, Dict. 5A, 6A (1937)	24-R	7071	7072	6286
Studebaker, Pres. 3C (1937)	24-R	7073	7074	6286
Terraplane, G, GU (1935)	24-B	6509	6685	—
Terraplane, 61, 62 (1936)	24-B	6696	6698	6095
Terraplane, 70, 71, 72 (1937)	24-B	7063	7064	6095
Willys, 77 (1933-34-35-36)	17-A	5159 (A)	4937	4759
Willys, 37 (1937)	17-A	5159 (A)	4937	4759
Willys Knight, 66E (1932)	16-S	5172 (D)	6726	—
Willys Knight, 66E (1932)	16-S	6724 (E)	6725	—
Willys Overland, 690A, 888A ('32)	16-S	6724 (E)	6725	—
Willys Overland, 690A (Closed)	16-S	5172 (D)	6726	—

(A)—No armored cable used (coil lead not protected). (B)—Cable Length 45½".

(C)—Cable Length 37⅞". (D)—Cable Length 4-1/16". (E)—Cable Length 6⅝".

NOTE—Mitchellocks are designed to be connected to the ignition coil by armored cable (except 'A' types without cable). See preceding section for complete data on Electrolocks also manufactured by Mitchell Specialty Company which are connected to distributor by armored cable.