

### HALDA MASTER will mount conveniently

in front of or underneath the instrument panel. To provide possible alternative methods of installation the MASTER has suitable screw holes on the back of the case (thread type M 4). It is delivered complete with fastening frame.

### HALDA MASTER is connected

to the speedometer as shown in figure 1. The speedometer cable 4 is detached from the speedometer 1 and screwed instead on to the T-gear 3, which in turn is screwed direct on to the speedometer. In special cases where space is lacking, it may be necessary to insert an extension cable 2 between the speedometer and the T-gear. The drive cable 5 joints the T-gear to the MASTER 8. MASTERS are supplied as standard with the connection for the drive cable direct from the rear as shown on figure 1, alternative 1. If the connection is required at a right angle as shown in alternative 2, it is necessary to order as an extra, an L-gear part No. 705512. When several instruments are joined in series as alternative 3, a special T-gear with through drive, part No. 705508, must be ordered as additional equipment.

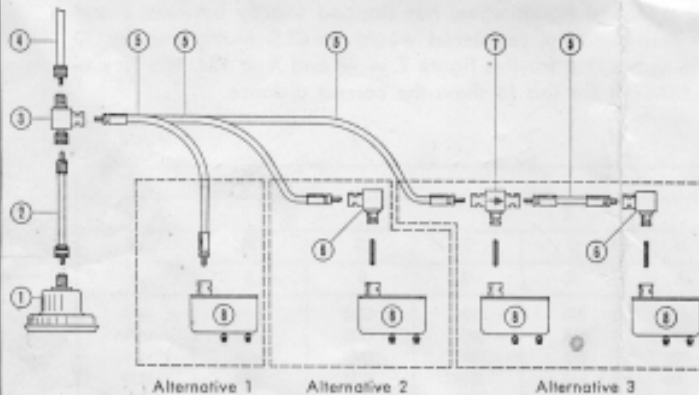


Fig. 1

1. Speedometer
2. Extension cable
3. T-gear, ratio 8:1
4. Speedometer cable
5. Drive cable to MASTER
6. L-gear, ratio 1:1
7. T-gear, ratio 1:1
8. HALDA MASTER

Check that driving cable from T-gear 3 enters gear 7 in direction of arrow, as indicated in figure 1, alternative 3.



Fig. 2

The drive cable is supplied with standard length of 24" (600 mm). Other lengths from table 1 are available if requested at the time of ordering.

T-gear for connection to the speedometer is supplied with screw connection and driving pin appropriate to the car for which it is required. Part numbers are shown in table 2.

Extension cables are supplied as extra accessories. Part numbers are shown in table 2 with details of connection thread types and driving pin dimensions.

Table 1

Table 2

DRIVE CABLES		T-GEARS*)			EXTENSION CABLES*)		T-GEAR AND EXTENSION CABLES CONNECTION SIZES	
Cat. No.	Length	Cat. No.	Length 6" (150 mm) Cat. No.	Length 12" (300 mm) Cat. No.	Thread	Driving Pin		
700270-1	6" (150 mm)	V-11-N	T-11	T-113	NF 5/8" x 18	2.7 x 2.7 mm		
700270-2	12" (300 mm)	V-12-N	T-12-N	T-123-N	M 12 x 1	3.2 x 3.2 mm		
700270-3	18" (450 mm)	V-13-N	T-13	T-133	M 16 x 1	2.7 x 2.7 mm		
700270-4	24" (600 mm)	V-14-N	T-14	T-143	M 18 x 1.5	2.7 x 2.7 mm		
700270-5	28" (710 mm)	V-16-N	T-16-N	T-163-N	M 12 x 1	2.7 x 2.7 mm		
700270-6	32" (815 mm)	V-17-N	T-17	T-173	M 16 x 1.5	2.7 x 2.7 mm		
700270-7	39" (996 mm)	V-18-N	T-18	T-183	M 19 x 1.25	2.7 x 2.7 mm		
700270-8	48" (1220 mm)	V-19-N	T-19	T-193	Clip-on type (Chrysler)	2.7 x 2.7 mm		
700270-9	79" (2000 mm)	V-20-N	T-20	T-203	Clip-on type (Ford)	2.7 x 2.7 mm		
700270-10	35" (900 mm)	V-24-N	T-24	T-243	Clip-on type (VDO)	2.7 x 2.7 mm		
700270-11	60" (1500 mm)	V-25-N	T-25	T-253	Clip-on type (GM)	2.7 x 2.7 mm		
		V-26-N	T-26	T-263	Clip on type (Holden, Australia) (Ford Falcon ..) (BMC)	2.7 x 2.7 mm		
		V-49-N	T-49	T-493	Clip-on type (Citroën)	3.2 x 3.2 mm		
		V-55-N	T-55	T-553	Clip-on type (England)	2.7 x 2.7 mm		
		V-56-N	T-56	T-563	Clip-on type (Volvo, Japanese)	2.7 x 2.7 mm		
		V-57-N	T-57	T-573	Clip-on type (Fiat)	2.7 x 2.7 mm		
		V-58-N	T-58	T-587	Clip-on type (Simca, Renault)	3.2 x 3.2 mm		
		V-60-N	T-60	T-603	Clip-on type (Opel Manta)	2.7 x 2.7 mm		
		V-61-N	T-61	T-613	Clip-on type (Dodge Aspen)	2.7 x 2.7 mm		
		V-65-N	T-65	T-653	Clip-on type (Datsun)	2.7 x 2.7 mm		
		V-66-N	T-66	T-663	NF 7/8" x 18	2.7 x 2.7 mm		
		V-67-N	T-67	T-673	M 19 x 1.25	2.7 x 2.7 mm		
		V-85-N	T-85	T-853	Clip-on type (Volkswagen)	2.7 x 2.7 mm		

\* Connection sizes - see extreme right hand column

The MASTER is provided with an adjustment gearing, by means of which the instrument can easily be accommodated to every existing make of car — that is to say, to the number of revolutions made by the speedometer drive to each mile or kilometer.

Looking at MASTER from the front, the gearing is found inside the left hand end plate, which can be lifted off after loosening the retaining screw. The position of the two change wheels X and Z is shown on fig. 2. The relation between the number of teeth on these wheels and the number of turns R per mile (km) of the speedometer cable is given in table 3.

**MASTERS are delivered from the works set for  $\approx$  1000 revs of the speedo cable per mile (km).**

When calibrating, the MASTER is zeroised and a trial run is made over an exact measured distance of 1 mile (km). The figure shown on the MASTER at the end of this test is multiplied by 10 and the resultant figure is sought in the table. This then shows the correct number of teeth required on the X- and Z-wheels.

**Example:** Suppose after the test that the 1/100 mile (km) figure wheel has stopped exactly between 3 and 4 and the 1/10 mile (km) figure wheel on 6 — then the total registered would be 63.5. Multiplying by 10 gives 635. Checking this value for R in the table shows that for this figure Z = 48 and X = 134. The X- and Z-wheels so determined must be fitted in the MASTER for this to show the correct distance.

**Table 3**

*CALIBRATE 141.32*

X	No. 101508						No. 145864		
	Z						22	18	16
	70	58	48	39	32 ✓	27 ✓			
R	R	R	R	R	R	R	R	R	
118	383	463	559	688	838	994	1220	1491	1677
119	387	466	564	694	846	1002	1230	1503	1691
120	390	470	568	700	853	1011	1240	1516	1705
121	393	474	573	705	860	1019	1251	1528	1719
122	396	478	578	711	867	1027	1261	1541	1734
123	400	482	583	717	874	1036	1271	1554	1748
124	403	486	587	723	881	1044	1282	1566	1762
125	406	490	594	729	888	1053	1292	1579	1778
126	409	493	597	735	895	1061	1302	1592	1791
127	412	498	602	740	902	1069	1313	1604	1805
128	416	502	606	746	909	1078	1323	1617	1819
129	419	506	611	752	917	1086	1333	1629	1833
130	422	510	616	758	924	1095	1344	1642	1847
131	425	514	621	764	931	1103	1354	1655	1862
132	429	517	625	770	938	1112	1364	1667	1876
133	432	521	630	775	945	1120	1375	1680	1890
134	435	525	635	781	952	1128	1385	1693	1904
135	438	529	639	787	959	1137	1395	1705	1918
136	442	533	644	793	966	1145	1406	1718	1933
137	445	537	649	799	973	1154	1416	1731	1947
138	448	541	654	805	981	1162	1426	1743	1961
139	451	545	658	810	988	1171	1437	1756	1975
140	455	549	663	816	995	1179	1447	1768	1989
141	458	553	668	822	1002	1187	1457	1781	2004
142	461	557	673	828	1009	1196	1468	1794	2018
143	464	561	677	834	1016	1204	1478	1806	2032
144	468	565	682	840	1023	1213	1488	1819	2046
145	471	569	687	845	1030	1221	1499	1832	2061
146	474	572	692	851	1037	1229	1509	1844	2075
147	477	576	696	857	1044	1238	1519	1857	2089
148	481	580	701	863	1052	1246	1530	1869	2103
149	484	584	706	869	1059	1255	1540	1882	2117
150	487	588	711	874	1066	1263	1550	1895	2132

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