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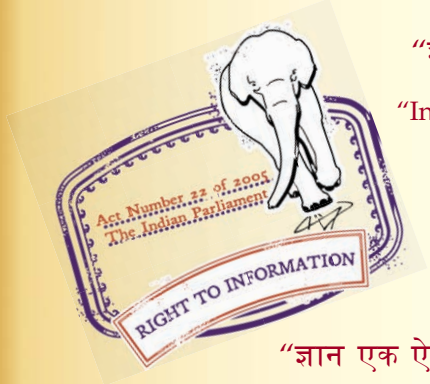
IS 13313 (1991): Automotive vehicles - Electrical wiring - Colour coding [TED 11: Automotive Electrical Equipment]



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"Knowledge is such a treasure which cannot be stolen"

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IS 13313 : 1991

भारतीय मानक

(Reaffirmed 2001)

स्वचल वाहन — विद्युत तारबंदी — रंगीय कोडीकरण

Indian Standard

AUTOMOTIVE VEHICLES — ELECTRICAL WIRING — COLOUR CODING

(First Reprint SEPTEMBER 1992)

UDC 621·11·066 : 621·315·3·777·6

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

December 1991

Price Group 2

Automotive Electrical Equipment Sectional Committee, TED 11

FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Automotive Electrical Equipment Sectional Committee had been approved by the Transport Engineering Division Council.

This standard specifies the colour code for the wiring used in Automotive Vehicles in order to facilitate easy distinction while wiring the different circuits.

In preparing this standard, assistance has been derived from DIN 72551 (Part 4) : 1951 'Electric cables for automobiles and motorcycles — Colour identification' issued by the Deutsches Institut für Normung, Germany. However, certain deviations and additional connections have been specified so as to avoid any confusion while wiring and also for quicker identification of the circuits.

Indian Standard

AUTOMOTIVE VEHICLES — ELECTRICAL WIRING — COLOUR CODING

1 SCOPE

1.1 This standard specifies colour codes for automobile cables conforming to IS 2465 : 1984 'Cables for motor vehicles (*second revision*)' used for major electrical circuits in automotives such as starting, charging, signalling, lighting, tell-tale warning and safety devices.

1.2 This standard does not cover such electrical circuits, as for airconditioning, electronic carburration, anti-skid braking, automatic transmission etc.

2 REFERENCE

2.1 The following Indian Standard is a necessary adjunct to this standard.

IS No.	*Title*
5 : 1978	Colours for ready mixed paints and enamels (*third revision*)

3 TERMINOLOGY

3.1 Main Colour — Bulk colour of insulating material of the cable.

3.2 Tracer Colour — A thin spiral or straight marking of a different colour/colours with respect to main colour.

3.3 In describing a colour code, the order to be followed is as follows:

Main/tracer 1/tracer 2; for example, Grey/Red/Blue will mean grey as the main colour and red and blue as the tracer colours.

4 TYPES OF COLOURS

4.1 The following colours may be used for main and tracer marking as per IS 5 : 1978.

Colour	*Shade No.*	*Colour*	*Shade No.*
Red	537	Blue	166
Black	—	Orange	557
Yellow	309	Brown	473
White	—	Grey	694
Green	280		

5 COLOUR CODES FOR DIFFERENT CONNECTIONS

5.1 The generally recommended colour codes are as follows:

All gauges (+ ve) supply points	Green
All ground/ Earth connections	Brown

5.1.1 For the other circuits, the colour codes are as follows:

Cable From	To	*Colour Code*	*Remarks*
Starting Circuit			
Battery (+ ve)	Starter (+ ve)	Red	
Battery (− ve)	Starter (− ve)	Black	
Starter switch	Starter solenoid	Black	
Charging Circuit with Dynamo and Ammeter			
Starter (+ ve)	Ammeter (B +)	Yellow	
Ammeter (L + ve)	Ignition switch/main line switch (30)	Green	
Ammeter (L + ve)	Regulator (B)	Green	
Regulator (D)	Dynamo (D)	Red	
Dynamo (− ve)	Earth	Brown	
Regulator (F)	Dynamo (F)	Orange	

Cable From	To	Colour Code	Remarks
Charging Circuit with Alternator and Ammeter			
Starter (+ ve)	Ammeter 'B' (+ ve)	Yellow	
Ammeter 'L' (+ ve)	Alternator (+ ve)	Green	
Ammeter 'L' (+ ve)	Ignition switch/main line switch (30)	Brown	
Alternator (− ve)	Earth	Brown	
Charging Circuit with Dynamo but without Ammeter			
Starter (+ ve)	Regulator (B)	Yellow	
Regulator (B)	Ignition switch/main line switch (30)	Yellow	
Regulator (D)	Dynamo (D)	Red	
Alternator (− ve)	Earth	Brown	
Charging Circuit with Alternator but without Ammeter:			
Starter (+ ve)	Alternator (+ ve)	Yellow	
Alternator (+ ve)	Ignition switch/main line switch (30)	Yellow	
Alternator (− ve)	Earth	Brown	
Ignition switch/main line switch (30)	Inspection lamp/handlamp	Red	
Ignition switch	Ignition coil (+ ve)	Black	
Igniton coil (− ve)	Distributor/contact breaker point	Grey	
Ignition switch (15/54)	Charging indicator lamp	Blue	Charging indicator to Dynamo/Regulator may also be blue
Charging indicator	Dynamo/Regulator/ Alternator (WL)	Blue	
Ignition switch(15/54)	Fuse box	Red/Yellow	
Ignition switch (30)	Fuse box	Red	
Relays and Switches			
Flasher relay (L)	Direction indicator switch	Red/Green	
Direction indicator switch	LHS indicator	Black/White	LHS—Left hand side RHS—Right hand side
Direction indicator switch	RHS Indicator	Black/Green	
Flasher switch	LH flasher indicator on the dashboard	Black/White	
Flasher switch	RH flasher indicator on the dashboard	Black/Green	
Brake light switch	stop lamp	Red/White	
Horn switch	Ground	Brown	
Horn switch	Horn	Brown/Green	
Oil pressure switch	Warning indicator	Blue/Green	

Cable From	To	*Colour Code*	*Remarks*
Ignition/Main line switch	Dip/Main switch	White/Black	
Light switch	Dip/Main switch	White/Black	
Light switch (58)	Fuse	Grey	
Dip/Main switch cornection for driving beam	Fuse	White	
Dip/Main switch for passing beam	Fuse	Yellow	
Fog lamp switch	Fog lamp LH & RH	Red/Brown	
Panel light switch	Panel lamps	Grey/Red	
Parking brake switch	Earth	Brown	
Parking brake switch	Parking brake indicator on dashboard	Orange/White	
Reverse lamp switch	Reverse lamp	Orange/Green	
Fog lamp switch	Fuse box	Red/blue	
Wiper Circuit			
Wiper fuse	Wiper switch	Blue	
Wiper switch	Wiper motor	Blue/Brown	
Wiper switch	Wiper stop function	Bule/Yellow	
Wiper motor	Wiper reset	Blue/Brown	
Wiper (– ve)	Earth	Brown	
Fuses in Circuit			
Fuse box	Brake light switch	Red/White	To avoid confusion with direction indicator cable and also to identify that this cable is from switch (15/54) through fuse.
Fuse box	Reverse lamp switch	Orange/Green	
Fuse box	Flasher relay (+ ve)	Red/Black	
Fuse box	Fog lamp switch	Red/Blue	
Fuse box	Horn	Black/Yellow	
Fuse	High beam indicator	Blue/Green	
Fuse	Head lamp (LH)	White/Red	To avoid confusion with the supply line from dip/main switch to fuse. Interchanging of LHS and RHS head lamp connections may not make any difference.
Fuse	Head lamp (RH)	White/Red	— do —

Cable From	To	*Colour Code*	*Remarks*
Fuse	Head lamp (LH)	Yellow/Green	To avoid confusion with supply line from dip main switch to fuse. Interchanging to LH and RH head lamp connection will not make any difference.
Fuse	Head lamp (RH)	Yellow/Green	— do —
Fuse	End/Side/Park LH Front lamp	Grey/Black	
Fuse	End/Side/Park RH Front lamp	Grey/Red	
Fuse	End/Side/Park LH Rear lamp	Grey/Black	
Fuse	End/Side/Park RH Rear lamp	Gery/Red	
Fuse	Cab lamp	Red	
Fuse	Panel light switch	Grey/Red	
Fuse	Wiper motor	Brown/Blue	
Sensors and Gauges			
Temperature sensor	Temperature gauge (G)	White	
Electrical oil pressure sensor	Oil pressure gauge (G)	Orange/Blue	
Electrical air pressure gauge (G)	Air pressure sensor	Orange/Yellow	
Fuel gauge	Fuel tank unit	Blue/Red	To avoid confusion with oil pressure warning indicator.
RPM Sensor	RPM Meter	Orange/Grey	
Fuse box	Parking brake indicator	Green	

NOTE — Nnmber in bracket indicate terminal designation.

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Doc : No. TED 11 (2913)

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters :

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002
Telephones : 331 01 31, 331 13 75

Telegrams : Manaksanstha
(Common to all Offices)

Regional Offices :	Telephone
Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{311 01 31 {331 13 75
Eastern : 1/14 C. I. T. Scheme VII M, V. I. P. Road, Maniktola CALCUTTA 700054	37 86 62
Northern : SCO 445-446, Sector 35-C, CHANDIGARH 160036	53 38 43
Southern : C. I. T. Campus, IV Cross Road, MADRAS 600113	235 02 16
Western : Manakalaya, E9 MIDC, Marol, Andheri (East) BOMBAY 400093	6 32 92 95

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